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By Electronic Mail

Memorandum

To: William J. Hengemihle

From: Stacey E. Schiding

CC: Kim D. Simpkins

Date: January 7, 2010

Subject: Chronology of Documented Bypassing of PVSC Main Interceptor at Yantacaw (1924-1990)

Bill:

Per our discussion regarding the availability of documented bypassing of the PVSC's main interceptor, I have attached a timeline describing dates, times and volumes (when known) of certain bypassing that occurred at the Yantacaw bypass, otherwise known as Yantacaw Street Overflow NPDES No. 003, located at the confluence of Third River and the Passaic River near Clifton. As you know, this overflow point when activated bypassed (and may still bypass) all domestic and industrial flow upstream to the terminus of the PVSC main interceptor in the Paterson area.

The bypass events recorded in the attached materials are not a comprehensive history of bypassing, as relatively complete documents appear to be limited to the 1952 through 1955 period at this time. However, this chronology does illustrate that the practice of diverting all sewage in the main trunk line into the Passaic River due to under-capacity during storm events or for repairs was common and occurred regularly throughout the history of the PVSC system. We are actively pursuing additional document sets that will help fill-out the history of bypassing of the main trunk line at Yantacaw and at the Newark Treatment Plant (i.e., PVSC Outfall No. 002).

Partial Chronology of Bypassing from Main Intercepting Sewer at Yantacaw
1924-1990

Date	Event
1920	
Nov. 17, 1924 to Nov. 24, 1924	18.12 MGD out of 38.2 MGD turned into River at Yantacaw River Crossing. (ABC018908)
Nov. 26, 1924 to Dec. 3, 1924	Yantacaw bypassed from Monday to Friday. (ABC018895, ABC018898-9)
Dec. 24, 1924 to Dec. 26, 1924	Yantacaw opened from 1:30 pm on December 24th to 10 am on December 26th and 4.92 MGD from above Yantacaw turned into the River. (ABC018858-60)
1940	
1947	Bypassing of the trunk sewer causing "adverse water conditions in the vicinity of Yantacaw" had been necessitated due to heavy rains and thaws that overloaded the sewer capacity. Also, to complete repair work at the Newark Bay Treatment Plant, it was "necessary to turn all sewage into the river at numerous points of outlet." (LPRSA0024296-7)
1950	
1950	Yantacaw bypassed for at least 72 hours, including regular business hours. (ABC012655, ABC012657, ABC012661, ABC012663, ABC012674)
1951	Yantacaw bypassed for at least 114 hours, including during regular business hours on January 23, February 1, February 21, March 14, and March 20. (ABC012605, ABC012608, ABC012616, ABC012629, ABC012636, ABC012641, ABC012648, ABC012651)
1952	Yantacaw bypassed for at least 800 hours, including a continuous bypass that lasted from April 29 to May 5, one that lasted from November 15 to November 28, and other bypasses during regular business hours in March, April, May, June and November. (ABC013721, ABC013722, ABC013725, ABC013727, ABC013754, ABC013755, ABC013756, ABC013757, ABC013758, ABC013760, ABC013761, ABC013763, ABC013764, ABC013765, ABC013768, ABC013769, ABC013770, ABC013771, ABC013772, ABC013773, ABC013774, ABC013775)

Partial Chronology of Bypassing from Main Intercepting Sewer at Yantacaw 1924-1990

Date	Event
1953	Yantacaw bypassed for at least 1,218 hours, including a continuous bypass that lasted from Sunday, February 15th to Tuesday, March 10th (16 regular business days) and other bypasses during regular business hours in March, April, May, June, October, November and December. (ABC013667, ABC013677, ABC013679, ABC013680, ABC013681, ABC013682, ABC013697, ABC013698, ABC013699, ABC013704, ABC013707, ABC013712, ABC013715, ABC013718)
1954	Yantacaw bypassed for at least 264 hours, including bypasses during regular business hours in February, March, May, August, October, November, and December. (ABC013607, ABC013615, ABC013616, ABC013617, ABC013618, ABC013620, ABC013621, ABC013626, ABC013628, ABC013639, ABC013642, ABC013651)
1955	Yantacaw bypassed for at least 333 hours, including bypasses during regular business hours in February, March, August, October and November. (ABC013578, ABC013579, ABC013580, ABC013581, ABC013587, ABC013589, ABC013597, ABC013599, ABC013600)
1956	Yantacaw bypassed for at least 69.5 hours, including bypasses during regular business hours in March, September, October, and December. (ABC013548, ABC013552, ABC013556, ABC013571, ABC013573, ABC013574)
1957	Yantacaw bypassed for at least 35 hours, including bypasses in February, March and May. (ABC013516, ABC013528, ABC013542)

Partial Chronology of Bypassing from Main Intercepting Sewer at Yantacaw 1924-1990

Date	Event
1958	Yantacaw bypassed for at least 35 hours, including bypasses during regular business hours in June and October. (ABC016712, ABC016713, ABC013489)
1959	Yantacaw bypassed for at least 31 hours, including bypasses during regular business hours in August and October. (ABC013453, ABC013457, ABC013466, ABC013470)
1960	
1961	Yantacaw bypassed for at least 27 hours, including bypasses during regular business hours in May and June. (ABC013383, ABC013386)
1962	Yantacaw bypassed for at least 25 hours, including bypasses during April and November. (ABC013307, ABC013340)
1963	Yantacaw bypassing estimated to be .31 MGD for the year 1963 (or 113,150 gallons total). (ABC018820)
1967	Yantacaw bypassing as of Nov. 18, 1967 noted to be 16.30 MGD (or 5.9 million gallons total). (ABC018818)
1969	Repairs to the two diesel pumps at the treatment plant resulted in bypassing to the river for a period of "several months." (LPRSA0010241)
1970	
April 16, 1973	Yantacaw and Newark bypassed for sewer inspection relative to McCarter Highway collapse. (LPRSA0006004)
March & April, 1974	Sewage bypassed at Newark during March and April 1-3 for repair work under McCarter Highway. (LPRSA0006006-9)

Partial Chronology of Bypassing from Main Intercepting Sewer at Yantacaw
1924-1990

Date	Event
1972-1976	Several times each year from 1972-1976, the River flow rose significantly, but the volume received at the treatment plant fell below average daily flow. In these instances, the Yantacaw Bypass had been thrown and the waste it carried bypassed into the River. (KLL019529)
1990	
October 10, 1990	A memo documents the formula, modified yearly, used to re-calculate the flows from PVSC municipalities when various bypasses, including Newark and Yantacaw, are thrown. (LPRSA0154595)

TABLE No . 4.

FLOW OF TOWNS IN ORDER OF THEIR INTERCEPTION
Week of Nov. 17-24.

Paterson		16.0 Mgd.	
Clifton-Merselis	0.25 Mgd.		
" Lake	1.38	1.63	17.63
Garfield	1.70		
Passaic Branch Line	2.40	4.10	
Lodi St. Venturi		(4.1 Mgd.)	
Rutherford-Madison	0.15 Mgd.		
E. Rutherford	0.16	0.31	
Wallington		----	4.41
Wallington Venturi			(4.13 Mgd)
Passaic Main Line		14.86	36.90
Passaic Venturi			(36.9 Mgd.)
Rutherford-Rutherford	0.28		
Lyndhurst	1.02	1.30	
Yantacaw Venturi *		(1.30 Mgd.)	
Yantacaw Overflow - - - - - - - - - - - - - - - - minus - - - - - - -			18.12 Mgd.
Nutley Golf Club	0.50		
" Park	0.15		
" Bell. Line	0.08	0.73	
Belleville-Terry	0.08		
" Academy	0.15	0.23	
Kearny- Belle.Pike	0.02		
Belleville-Mill St.	0.14	0.16	
Second River Venturi			(21.2 Mgd.)
Union Outlet		5.81	
Kearny-Johnston	0.86		
E. Newark	0.44	1.30	
Kearny-Hamilton		1.55	
Harrison		2.45	5.30
So. 4th St. Venturi			(5.3 Mgd.)
Newark			60.19
Totals			92.50
Newark Bay Venturi			(92.50 Mgd)

* 18.12 Mgd. out of 38.2 Mgd. turned into river at overflow at Yantacaw River Crossing. Reduce all figures above Yantacaw overflow in the ratio of $\frac{20.08}{38.2}$

Table II.

WEEKLY RECORD OF VENTURI METERS
Showing Flow in Mgd.
Week Nov. 26 - Dec. 3 (or Nov. 24-Dec.1)

Location	Date	Unit	Flow
So. Fourth Street	Nov.26-Dec.3	82.0	4.6
Lodi St. R.C.	" 24- " 1	78.0	3.9
Paterson	" "	81.4	14.0
Passaic #1	" "	80.9**	13.6
Passaic #2	" "	83.7	15.5
Second River #1	" "	68.7*	6.5
" " #2	" "	75.9	11.0

* There is no relation between Passaic and Second River Charts for this week, due to P.V. Sewer being turned out at 3rd River Monday to Friday - and 2nd River tubes being clogged owing to insufficient flow to cleanse after storm.

** The sewer was allowed to raise up owing to throw out at 3rd River, which always clogs this tube.

Table III.

Week of Nov. 24 - Dec. 1.

Location	Date	Dial	Flow
Union Outlet Sewer	Nov .24 - 25	596,520	0.08 *
" " "	Nov. 25 - 26	596,580	0.06 *
" " "	Nov. 26 - 27	596,620	0.04 *
" " "	Nov. 27 - 28	596,660	0.04 *
" " "	Nov. 28 - 29	605,440	8.78 **
" " "	Nov. 29 - 30	612,950	7.51
" " "	Nov. 30 - Dec. 1	619,450	6.60
			7) 23.01
		Average - - - - -	3.29

* Flow turned into river; figures show only leakage thru stop planks.

** For 8-1/2 hours flow was turned into the river.

Table IV.

Flow of Towns in the order of their Interception.
November 24 - December 1, 1924
(Nov. 26 - Dec. 3)

Paterson				14.0	
Clifton - Merselis	0.25				
" Lake & Hope	1.10			1.35	
Garfield	1.50				
Passaic Br.Line *	2.40	3.90			
Lodi St. Venturi		(3.90)			
Rutherford-Madison	0.15				
E.Rutherford *	0.09	0.24			
Wallington				4.14	
Wallington Venturi				(3.81)**	
Passaic Main Line *	9.51 plus 14.-1.35-4.14 =			29.0	
Passaic Meters				(29.0)	
Rutherford-Ruth. Ave.	0.37				
Lyndhurst *	0.97	1.34			
Yantacaw Venturi		(1.34)			
Yantacaw overflow		minus		14.16 Mgd.	
Nutley-Park	0.10				
" Belleville Line	0.07				
Golf Club	0.64				
Belleville-Terry	0.17				
" Academy	0.16	1.14			
Kearny - Belleville T.P.	0.04				
Belleville - Mill	0.14	0.18		31.66 ***	
Second River Venturi				(17.50)	
Union Outlet				3.29	
Kearny-Johnston	0.78				
E.Newark *	0.52	1.30			
Kearny-Hamilton	1.13				
Harrison *	2.17	3.30	4.60		
So. 4th St. Venturi			(4.60)		
Newark *					34.90
Totals					60.29
Newark Bay Venturi					(60.29)

* By subtraction
** Does not check
*** The difference 31.66 - 17.50 = 14.16 Mgd. is weekly average of flow turned into the river. Rduce all figures above Yantacaw overflow in the ratio of $\frac{29.00 \text{ plus } 1.34-14.16}{29.00 \text{ plus } 1.34} = \frac{16.18}{30.34}$

ABC018898

Table V.

Flow of Municipalities.

Week of Nov. 17 - 24, 1924.

Town	Reaching Trunk Sewer - Mgd.	Reaching Newark Bay Pump Station - Mgd.
Paterson	14.00	7.46
Clifton	1.35	0.72
Garfield	1.50	0.80
Wallington	----	----
E. Rutherford	0.09	0.05
Rutherford	0.52	0.28
Passaic	11.91	6.35
Lyndhurst	0.97	0.52
Total	30.34*)	Sub-total 16.18 *
Nutley		0.81
Belleville		0.47
Union Outlet		3.29
Kearny		1.95
E. Newark		0.52
Harrison		2.17
Newark		34.90
	Grand Total	60.29

* For part of the week the flow was turned into the Passaic River in sufficient quantity to make a weekly average of 14.16 Mgd.

Table IV.

Flow of Towns in order of their Interception

Week of Dec.22-29, 1924.

Paterson				12.50	
Clifton - Merselis & Lex.	0.28				
" Lake & Hope	1.55			1.83	
Garfield	1.80				
Passaic Br. Line *	1.50	3.30			
Lodi St. Venturi		(3.30)			
Rutherford-Madison St.	0.06				
E. Rutherford *	0.23	0.29			
Wallington *	0.52			4.11	
Wallington Venturi				(4.11)	
Passaic Main Line *	8.46	(12.50 plus 1.83 plus 4.11) =		26.9	
Passaic Meters				(26.9)	
Rutherford-Rutherford Ave.	0.29				
Lyndhurst *	0.84	1.13			
Yantacaw Venturi		(1.13)			
Yantacaw Overflow - - - - -	minus	- - - - - - - - -		4.92	
Nutley - Park Ave.	0.08				
" Belleville Line	0.05				
" Golf Club	0.70				
Belleville - Terry St.	0.33				
" Academy St.	0.11	1.27			
Kearny-Belleville Tnpk.	0.04				
Belleville- Mill St.	0.18	0.22		29.52	
Second River Venturi				(24.60) **	
Union Outlet				5.71	
Kearny - Johnston Ave.	0.60				
E. Newark *	0.70	1.30			
Kearny - Hamilton	1.40				
Harrison *	1.30	2.70	4.00		
So. 4th St. Venturi			(4.00)		
Newark *	43.23				
Totals -					77.54
Newark Bay Venturi -					(77.54)

* By Subtraction.

** Difference 29.52 - 24.60 = 4.92 Mgd. is weekly average of flow turned into the river. Reduce all figures above Yantacaw overflow in the ratio of:

$$\frac{26.9 \text{ plus } 1.13 - 4.92}{26.9 \text{ plus } 1.13} = \frac{23.11}{28.03}$$

TABLE V.

Flow of Municipalities.

Week of Dec. 22-29, 1924

Town	Reaching Trunk Sewer - Mgd.	Reaching Newark Bay Pumping Sta.- Mgd.
Paterson	12.50	10.31
Clifton	1.83	1.51
Garfield	1.80	1.48
Wallington	0.52	0.43
E. Rutherford	0.23	0.19
Rutherford	0.35	0.29
Passaic	9.96	8.21
Lyndhurst	0.84	0.69
	Total 28.03	Sub-total 23.11 *
Nutley		0.83
Belleville		0.62
Union Outlet		5.71
Kearny		2.04
E. Newark		0.70
Harrison		1.30
Newark		43.23
	Grand Total	77.54

* For part of the week the flow was turned into the Passaic River in quantity equal to average weekly of 4.92 Mgd.

REPORT.

Week of Dec. 22-29 - Dec. 25-30
Dec. 24-31, 1924.

MAIN LINE

The Paterson Chart is O.K. for this week, except for change of time shown by note on Chart.

The two charts from Passaic Meters are O.K. for this week.

The Second River Charts No. 1 and No. 2 are O.K., but no comparison can be made with the Passaic Meters for this week, owing to the flow of our sewer being thrown into the River at Yantacaw from 1:30 p.m. Wednesday, Dec. 24, until 10 a.m. Friday, Dec. 26, which was done to relieve pressure at the Main Pumping Station while they were in trouble during the storm period of Dec. 24th.

Charts for Main Pumping Station are all O.K. for this week excepting the one from Meter No. 2, date of Dec. 25 - 26, when Meter was out of order, from 11:00 a.m. Dec. 24, to 2:00 p.m. Dec. 26; most all Newark sewers were thrown into the River.

Clifton Charts No. 1 and No. 2 are O.K. for this week.

Nutley Charts No. 1, No. 2 and No. 3 are all O.K.

Belleville Charts for all three Meters are O.K. for this week, the Meter Chambers should be cleaned out more often by the Town, as large quantities of sand and rubbish are still being washed down the sewers and deposited behind the weir plates.

WALLINGTON BRANCH.

The records from the Wallington Pumping Station for this week are probably a little low. The Meter was tested on Dec. 28, and found to be recording slightly low.

April 30, 1948

The Passaic Valley Sewerage Commissioners,
24 Branford Place,
Newark 2, N.J.

Gentlemen:- Re:- Complaint from Nereid Boat Club, Belleville; N. regarding Pollution in the Passaic River.

As directed at the meeting on April 6, 1948, I investigated the conditions of pollution in the Passaic River described in the letter from Mr. Homer R. Zink, Captain, Nereid Boat Club, addressed to Passaic Valley Sewerage Commissioners under date of March 25, 1948. As further instructed, I met Mr. Zink at the boat club on the early evening of April 9 to discuss the matters described in his letter. Two other members joined in part of the discussion.

Starting with the most recent conditions which had caused the damage to their boats and oars by the accumulation of "tar and sludge" at their dock, and oil films on the river, I explained the escape of Bunker C fuel oil from the United Wool Piece Dyeing and Finishing Company in Passaic during the night of March 19, and a further escape of Bunker C fuel oil at a point less than half a mile downstream below the boat club at 2:00 am on March 24, 1948, from the Studerus Oil Company in Kearny, which oil had floated upstream to Belleville bridge on the extra high full-moon, Spring tide, much of it being deposited along the Nereid dock.

I explained further that these occurrences had to be considered as accidental and sudden in occurence, but that there was some measure of reassurance for them in the fact that the condition was not due to continuous or wilful pollution, and that such accidents might not occur again for a long time.

As Mr. Zink's letter had concluded with:- "We hope you can do something for us in this situation.",I mentioned that what help we could give in this situation had already been given in our tracing of the sources of the oil, the stopping of further leakage and causing the two concerns to skim as much oil as possible from the surface of the river, in order to reduce the amount spreading up and downstream on the successive tidal sweeps.

Mr. Zink mentioned driftwood in the stream. I stated that we did not have authority for removal of driftwood from the river but that where we found rubbish or floatable material being thrown into the river or deposited on the banks where it could fall, blow or wash into the river, we stopped such practice and made those responsible recover as much as possible, and in this way prevented much floatable material from reaching the streams.

Taking up the complaint about their troubles from pollution last Fall and this Spring, I first explained to Mr. Zink that the trunk sewer in times of heavy rains or rapid thaws could not carry the greatly increased load

of sewage and that overflows took place until the overload was relieved, and that this was a necessary feature of safety in the operation of the trunk sewer. Also that direct storm sewers during storms or thaws carried dirty street wash and oil films into the streams. In addition, that on infrequent occasions of major repairs at our main pumping station and sewage treatment plant at Newark Bay, it has been necessary to have an empty trunk sewer while repairs underground could be made, and that at such times it may be necessary to turn all sewage into the river at numerous points of outlet. This explained to Mr. Zink why they sometimes encountered adverse water conditions in the vicinity of Yantacaw.

The bad effects of pollution last Fall were definitely explained by the diversion of sewage to the river for an extended period while replacement of screen guides at Newark Bay was being accomplished last September.

Explaining the conditions this Spring (before the escapes of the Bunker C), I cited the rapid thaws in March as carrying exceptional amounts of dirty street wash and oil film to the streams and the frequent overflows from the sewers during March as the aftermath of the thaws. I pointed out that all these things in the aggregate resulted in oil films, scums of grease, and particles of sludge in the river.

One of the members mentioned green and yellow colors in Second River at times. In explanation of this, the case of the Meadow Brook storm sewer was outlined. It was related that sanitary sewers in Newark, Belleville and Bloomfield had overflow points into the Meadow Brook storm sewer, and when blockages occurred in sanitary sewers, the sewage rose in the sanitary sewers and spilled over the overflow sills into the storm sewer and thence into Second River.

Also, that some of the industrial plants in Bloomfield and Belleville treat their industrial waste waters before discharging their effluents into the Meadow Brook storm sewer.

In this connection it was explained that the Edison Primary Battery plant in Belleville, after precipitating and settling of zinc sludge in settling pits discharge their clarified effluent into the storm sewer, and when the pits are becoming overloaded with sludge, the slightly yellow sludge begins to escape into the storm sewer and thence into Second River. Similarly, the Edison Chemical Works at Silver Lake, Belleville, was described as settling out oxides of iron varying in color as blue, green, yellow or reddish-brown, in large settling pits, discharging the clarified effluent into the Meadow Brook storm sewer. Any disturbances here may cause some escape of vari-colored sludge.

Our daily supervision of this storm sewer was related, and our procedure of tracing and getting cleared the blockages in sanitary sewers and thus stopping the overflows, and in

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHIEF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED Date	OPENED Hour	CLOSED Date	CLOSED Hour	ORDERED BY	REASON
Yantacaw Sta. All Newark	12/29/50	12:30 N.	12/30/50	11:30 A.M.	Van Duyne	Rain and Snow

(Pumpage record on following sheets)

Mr. Lubatkin's copy

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHIEF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
	Date	Hour	Date	Hour		
Union Outlet	12/7/50	4 P.M.	12/8/50	11:30 A.M.	Mr. Van Duyne	Rain
Verona Ave.	"	"	"	"	"	"
Herbert Pl.	"	"	"	"	"	"
4th Ave.	"	"	"	"	"	"
Clay St.	"	"	"	"	"	"
Reeter St.	"	"	"	"	"	"
Saybrook Pl.	"	"	"	"	"	"
City Dock	"	"	"	"	"	"
Jackson St.	"	"	"	"	"	"
Polk St.	"	"	"	"	"	"
Freeman St.	"	"	"	"	"	"
Yantacaw Sts.	12/8/50	2 A.M.	"	9 A.M.	Mr. Jacobus*	"

*After conferring with the Chief Engineer.

(Pumpage record on following sheets)

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHIEF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED Date	OPENED Hour	CLOSED Date	CLOSED Hour	ORDERED BY	REASON
Union Outlet	12/4/50	12:30 P.M.	12/4/50	9 P.M.	C.Marquardt*	Rain
Verona Ave.	"	"	"	"	"	"
Herbert Pl.	"	"	"	"	"	"
4th Ave.	"	"	"	"	"	"
Clay St.	"	"	"	"	"	"
Hector St.	"	"	12/5/50	9:30 A.M.	"	"
Saybrook Pl.	"	"	"	"	"	"
City Dock	"	"	"	"	"	"
Jackson St.	"	"	"	"	"	"
Polk St.	"	"	"	"	"	"
Freeman St.	"	"	"	"	"	"
Yantacaw Sta.	"	8:30 P.M.	"	8:30 A.M.	Mr.Van Duyne	"

*After conferring with the Chief Engineer.

(Pumpage record on following sheets)

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHIEF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
	Date	Hour	Date	Hour		
Union Outlet	11/25/50	9 A.M.	11/26/50	1 P.M.	Mr. Jacobus	Rain&Wind Storm
Verona Ave.	"	"	"	"	"	"
Herbert Pl.	"	"	"	"	"	"
4th. Ave.	"	"	"	"	"	"
Clay St.	"	"	"	"	"	"
Rector St.	"	"	"	"	"	"
Saybrook Pl.	"	"	"	"	"	"
City Dock	"	"	"	"	"	"
Jackson St.	"	"	"	"	"	"
Polk St.	"	"	"	"	"	"
Freeman St.	"	"	"	"	"	"
Yantacaw Sta.	11/25/50	1 P.M.	11/26/50	9:30 A.M.	"	"
Paterson Line	11/25/50	10 A.M.	11/28/50	10 A.M.	"	"

(Pumpage record on following sheets)

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHIEF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
	Date	Hour	Date	Hour		
Union Outlet	10/4/50	10 P.M.	11/5/50	11:30 A.M.	Jacobus*	Rain
Verona Ave.	"	"	"	"	"	"
Herbert Pl.	"	"	"	"	"	"
4th Ave.	"	"	"	"	"	"
Clay St.	"	"	"	"	"	"
Rector St.	"	"	"	"	"	"
Saybrook Pl.	"	"	"	"	"	"
City Dock	"	"	"	"	"	"
Jackson St.	"	"	"	"	"	"
Polk St.	"	"	"	"	"	"
Freeman St.	"	"	"	"	"	"
Yantacaw Sta.	10/5/50	2 A.M.	"	"	"	"

*After conferring with the Chief Engineer.

(Pumpage record on following sheets)

Mr. Ludlum's copies

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHIEF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED Date	OPENED Hour	CLOSED Date	CLOSED Hour	ORDERED BY	REASON
Un-Outlet Newark,N.J.	2/7/51	11 A. M.	--	--	Anderson*	Rain
Yantacaw Sta.	"	5 P.M.	--	--	Van Duyne	"
Un-Outlet &	--	--	--	--	"	Clear
Verona Ave.	--	--	2/7/51	7:30 P.M.	"	Clear
Yantacaw Sta.	--	--	2/8/51	8:30 A.M.	Marquardt*	"
Harvey St. 4th Ave.	--	--	"	2:30 P.M.	Anderson*	"
Clay St.	--	--	"	"	"	"

*After conferring with the Chief Engineer.

(Pumpage Record on following sheets)

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHIEF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED Date	OPENED Hour	CLOSED Date	CLOSED Hour	ORDERED BY	REASON
Un-Outlet & Nwk.	2/10/51	5:30 A.M.	—	—	Marquardt*	Pump Out of Order
Nwk.To Clay St.	—	--	2/10/51	12 N.	"	" "
Nwk.All Back	—	--	"	2:30 P.M.	"	" "
Un-Outlet & Nwk.	2/11/51	6 P.M.	—	—	"	" "
Un-Outlet only	—	--	2/13/51	8:30 A.M.	"	" "
Verona Ave.	--	--	"	9:30 A.M.	"	" "
Clay St.	—	--	"	1:30 P.M.	"	" "
Un-Outlet to Clay Street	2/13/51	7:45 P.M.	—	--	"	" "
Un-Outlet to Clay Street	--	--	2/14/51	10 A.M.	"	" "
Un-Outlet to Clay Street	2/14/51	5:45 P.M.	—	--	"	Rain
Un-Outlet to Clay Street	—	--	2/15/51	9:30 A.M.	"	Clear
All Newark	—	--	"	2:30 P.M.	"	"
Un-Outlet & Nwk.	2/17/51	4 A.M.	—	—	"	Rain
Yantacaw Sta.	"	9:30 P.M.	--	--	"	"
Un-Outlet & Verona Ave.	--	--	2/17/51	10 P.M.	"	"
Yantacaw Sta.	—	--	2/18/51	9:30 A.M.	"	Clear
All Newark	—	--	"	11:30 A.M.	"	"

*After conferring with the Chief Engineer.

(Pumpage Record on following sheets)

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHIEF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED Date	OPENED Hour	CLOSED Date	CLOSED Hour	ORDERED BY	REASON
Un-Outlet & Nwk.	2/19/51	5 P.M.	--	--	Marquardt*	Rain
Un-Outlet & Verona Ave.	--	--	2/20/51	9:30 A.M.	"	"
All Newark	--	--	"	2:50 P.M.	"	"
Un-Outlet & Verona Ave.	2/20/51	4 P.M.	--	--	"	"
Yantacaw Sts.	2/21/51	9:30 A.M.	--	--	"	"
Un-Outlet & Verona Ave.	--	--	2/21/51	5:30 P.M.	"	"
Yantacaw Sts.	--	--	2/22/51	9 A.M.	"	Clear
Un-Outlet to Clay St.	2/22/51	10:30A.M.	--	--	"	Rain
" "	--	--	2/22/51	11:45 A.M.	"	Clear
Un-Outlet & Nwk.	2/23/51	8:30 A.M.	--	--	"	Rain
" " "	--	--	2/23/51	10 A.M.	"	Clear
Un-Outlet only	2/23/51	3 P.M.	--	--	"	Rain
" " "	--	--	2/23/51	3:30 P.M.	"	"
Un-Outlet to Clay St.	--	--	--	--		
Un-Outlet to Clay St.	--	--	2/24/51	9:30 A.M.	"	Clear
Clay to Freeman Sts.	--	--	2/25/51	10 A.M.	"	"

*After conferring with the Chief Engineer.

(Pumpage Record on following sheets)

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHIEF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED Date	OPENED Hour	CLOSED Date	CLOSED Hour	ORDERED BY	REASON
Un-Outlet & Newark	3/13/51	4:30 P.M.	--	--	Marquardt*	Rain
Yantacaw Sta.	3/14/51	11 A.M.	--	--	"	"
Un-Outlet, Clay St., Newark	--	--	3/14/51	3 P.M.	"	Clear
Yantacaw Sta.	--	--	"	1:30 P.M.	"	"
Bal. of Nwk.	--	--	3/15/51	9:30 A.M.	"	"

*After conferring with the Chief Engineer.

(Pumpage Record on following sheets)

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHIEF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED Date	OPENED Hour	CLOSED Date	CLOSED Hour	ORDERED BY	REASON
Un-Outlet & Nwk.	3/19/51	5 P.M.	--	---	Marquardt*	Rain
Yantacaw Sta.	3/20/51	5:30A.M.	--	---	Mason-Engr.*	"
Yantacaw Sta.	--	--	3/20/51	9 A.M.	L.B.Anderson*	Clear
Un-Outlet to Clay St.	--	--	"	12 N.	"	"
All Newark Back	--	--	3/21/51	9 A.M.	Jacobus*	"

*After conferring with the Chief Engineer.

(Pumpage Record on following sheets)

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHIEF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED Date	OPENED Hour	CLOSED Date	CLOSED Hour	ORDERED BY	REASON
Newark, N.J. Yantacaw Sta.	1/23/51	2 A.M. 4 A.M.	1/24/51	2 P.M. 8 A.M.	Engr. - Mason*	Rain Engine Broke Main Sta.

*After conferring with the Chief Engineer.

(Pumpage record on following sheets)

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHIEF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED Date	OPENED Hour	CLOSED Date	CLOSED Hour	ORDERED BY	REASON
Un-Outlet	1/31/51	4 P.M.	--	--	Marquardt*	Storm
All Newark	"	"	--	--	"	"
Un-Outlet and	--	--	2/1/51	3 P.M.		
Verona Ave.Nwk.	--	--	"	"	"	"
Yantacaw Sta.	2/1/51	3 P.M.	--	--	"	"
Yantacaw Sta.	2/2/51	--	2/2/51	8 A.M.	"	"
All Newark	--	--	--	10 A.M.	"	"

*After conferring with the Chief Engineer.

(Pumpage Record on following sheets)

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHIEF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED Date	OPENED Hour	CLOSED Date	CLOSED Hour	ORDERED BY	REASON
All Newark	1/14/51	6 P.M.	1/15/51	12 N.	Marquardt*	Rain
Yantacaw	1/15/51	9 P.M.	1/15/51	9 A.M.	Van Duyne	"

*After conferring with the Chief Engineer.

(Pumpage record on following sheets)

Line		Out		In		Order By
		Date	Hour	Date	Hour	
Union		11-16-55	9.– AM	11-16-55	7.– PM	
Verona	Ave	"	9.15 "	"	7.15 "	
Herbert	Pl.	"	9.30 "	11-18-55	9.45 AM	Marquardt High Water Storm WBPS
4th	Ave	"	9.45 "	"	10.– "	
Clay	St.	"	10.– "	"	10.15 "	
Rector	St.	"	10.15 "	"	10.30 "	
Claybrook	Pl.	"	10.30 "	"	10.45 "	
Jackson	St.	"	10.45 "	"	11.– "	
Polk	St.	"	11.– "	"	11.15 "	
Freeman	St.	"	11.15 "	"	11.30 "	
Watapaw		"	11.45 "	11-17-55	9.30 "	
Union		11-17-55	10.30 "	11-18-55	9.30 "	

ABC013578

	Out		In		
Line	Date	Hour	Date	Hour	Order By
Union	11-10-55	3:30 PM	11-11-55	3:30 AM	Superintendent Steam — NOPS
Verona Ave	"	3:45 "	"	1:15 "	
Herbert Pl	"	4:- "	11-12-55	8:45 "	
4th Ave	"	4:15 "	"	9- "	
Clay St	"	4:30 "	"	9:15 "	
Rector St	"	4:45 "	"	9:30 "	
Saybrook Pl	"	5:- "	"	9:45 "	
Jackson St	"	5:15 "	"	10- "	
Polk St	"	5:30 "	"	10:15 "	
Freeman St	"	5:45 "	"	10:30 "	
Vantreaw	11-11-55	12:15 AM	11-11-55	10- AM	
Union	"	11:15 "	11-12-55	8:15 "	
Verona Ave	"	11:- "	"	8:30 "	

ABC013579

Line	Out		In		Order By
	Date	Hour	Date	Hour	
Union	10-30-55	9:30 AM	10-30-55	1:30 PM	Marquardt Storm Shoppes
Verona Ave	"	9:45 "	"	4:45 "	
Herbert Pl.	"	10 - "	11-1-55	1:30 "	
4th Ave	"	10:15 "	"	1:45 "	
Clay St.	"	10:30 "	"	2 - "	
Rector St.	"	10:45 "	"	2:15 "	
Saybrook Pl.	"	11 - "	"	2:30 "	
Jackson St.	"	11:15 "	"	2:45 "	
Polk St.	"	11:30 "	"	3 - "	
Freeman St.	"	11:45 "	"	3:15 "	
Vantacaw	"	12-N.	"	3:30 "	

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LINE		OUT DATE	OUT HOUR	IN DATE	IN HOUR	ORDER BY
CLAY	ST	10-14-JJ	9.45 AM	10-15-JJ	3.45 PM	
SAYBROOK	PL	"	10.- "	10-21-JJ	1.30 "	
RECTOR	ST	"	10.15 "	"	1.45 "	
JACKSON	ST	"	10.30 "	"	2.- "	
POLK	ST	"	10.45 "	"	2.15 "	
FREEMAN	ST	"	11.- "	"	2.30 "	
VERONA	AVE	"	11.15 "	10-15-JJ	2.45 "	
UNION		"	12.45 PM	10-16-JJ	8.40 "	
HERBERT	PL	"	1.- "	10-15-JJ	3.- "	
4TH	AVE	"	1.15 "	"	3.15 "	
VANTACAW		"	3.15 "	"	9.- AM	
VERONA	AVE	10-16-JJ	2.50 "	10-16-JJ	8.30 PM	
HERBERT	PL	"	3.- "	10-21-JJ	10.- AM	
4TH	AVE	"	3.15 "	"	10.15 "	
CLAY	ST	"	3.30 "	"	10.30 "	
VANTACAW		"	4.45 "	10.17-JJ	10.30 "	
UNION		10-17-JJ	2.30 "	10-19-JJ	9.30 "	
VERONA	AVE	"	3.45 "	10-21-JJ	1.30 PM	
UNION		10-19-JJ	3.30 "	10-20-JJ	4.- "	

ABC013581

LINE	OUT DATE	OUT HOUR	IN DATE	IN HOUR	ORDER BY
UNION	8-18-JJ	3.30 PM	8-19-JJ	2.30 AM	
VERONA AVE	"	4- "	"	2.45 "	
HERBERT PL	"	4.15 "	8-20-JJ	9.15 "	
4TH AVE	"	4.30 "	"	9.30 "	
CLAY ST	"	4.45 "	"	9.45 "	
VANDAM	"	11.30 "	8-19-JJ	10.30 "	
RECTOR ST	8-19-JJ	12.15 AM	8-20-JJ	10 "	
SKYBROOK PL	"	12.30 "	"	10.15 "	
JACKSON ST	"	12.45 "	"	10.30 "	
POLK ST	"	1.- "	"	4.45 "	
FREEMAN ST	"	1.15 "	"	11- "	
UNION	"	2.15 PM	"	8.50 "	

Marquardt Lighting Systems

	Out		In		Order by
Line	Date	Hour	Date	Hour	
Union	8-11-55	7- PM	8-12-55	3.15 PM	Marquard – Storm High Water & BPDs
Verona Ave	"	7-15 "	8-14-55	8.30 AM	
Herbert Pl	"	7.30 "	"	8.45 "	
4th Ave	"	7.45 "	"	9- "	
Clay St	"	8- "	"	9.15 "	
Union	8-13-55	8- AM	8-13-55	12.30 PM	
Yantacaw	8-12-55	4.45 "	8-12-55	1.15 "	
Yantacaw	"	2.30 PM	8-13-55	3.15 "	

	Out		In		
Line	Date	Hour	Date	Hour	Order By
Union	3-21-55	2.30 PM	3-22-55	3- PM	Marquardt High Water Lt Boos
Verona Ave	"	2.45 "	3-23-55	1.30 "	
Herbert Pl.	"	3- "	"	1.45 "	
4th Ave	"	3.15 "	"	2- "	
Clay St.	"	3.30 "	3-22-55	2.30 "	
Yantacaw	3-22-55	10.15 AM	3-23-55	9.45 AM	

ABC013597

	OUT		IN		
LINE	DATE	HOUR	DATE	HOUR	ORDER BY
UNION	2-18-55	4 PM	2-19-55	8.45 AM	Marquardt Repair Pumps at [illegible]
VERONA AVE	2-21-55	1.15 "	3-9-55	9.30 "	
HERBERT PL	"	1.30 "	"	9.45 "	
4th AVE	"	1.45 "	"	10. "	
CLAY ST	"	2. "	2-25-55	4.45 PM	
UNION	"	2.30 "	2-23-55	1. "	
YANTACAW	2-23-55	10.30 AM	"	4.45 "	
UNION	"	3.45 PM	2-24-55	9.45 AM	
UNION	2-24-55	3.30 "	2-25-55	9. "	
UNION	2-25-55	3.15 "	2-26-55	8.45 "	
UNION	2-28-55	1.15 "	3-2-55	9. "	
CLAY ST	"	3.15 "	3-9-55	10.15 "	
YANTACAW	3-1-55	1. "	3-1-55	4.30 PM	
UNION	3-2-55	2. "	3-3-55	1. "	
UNION	3-3-55	4. "	3-4-55	10.15 AM	
YANTACAW	3-4-55	3. AM	"	1.45 PM	
UNION	"	12.30 PM	3-6-55	5.15 "	
YANTACAW	3-6-55	4.35 "	3-7-55	10.30 AM	

	Out		In		
Line	Date	Hour	Date	Hour	Order By
Verona Ave	1-28-55	9.30 AM	2-4-55	10-AM	J Marquardt Repair Pumps at WQPS
Herbert Pl	"	9.45 "	"	10.15 "	
4th Ave	"	10- "	"	10.30 "	
Clay St	"	10.15 "	2-11-55	4.45 PM	
Rector St	"	10.30 "	3-9-55	10.30 AM	
Saybrook Pl	"	10.45 "	"	10.45 "	
Jackson St	"	11- "	"	11- "	
Polk St	"	11.15 "	"	11.15 "	
Freeman St	"	11.30 "	"	11.30 "	
Union	"	3.30 PM	1-31-55	1- PM	
Union	2-1-55	2.45 "	2-2-55	10.30 AM	
Vantacaw	2-2-55	10-AM	2-4-55	2.30 PM	
Union	2-4-55	11.50 PM	2-7-55	12.15 AM	
Vantacaw	2-6-55	7.05 "	2-7-55	10.30 "	
Union	2-7-55	2.30 "	2-8-55	9- "	
Union	2-8-55	12.15 "	2-12-55	12 N	
Vantacaw	2-11-55	3.30 "	"	10-AM	
Verona Ave	2-14-55	3- "	2-18-55	4.15 PM	
Herbert Pl	"	3.15 "	"	4.30 "	
4th Ave	"	3.30 "	"	4.45 "	
Clay St	"	3.45 "	2-15-55	5.30 "	
Union	2-15-55	2.45 "	"	5.45 "	
Vantacaw	"	5- "	2-16-55	9.45 AM	
Union	2-16-55	3.30 "	"	6.30 PM	
Clay St	"	4.30 "	"	5- "	
Vantacaw	"	6- "	2-17-55	9.45 AM	
Union	2-17-55	10.45 AM	2-18-55	9- "	

LINE	OUT		IN		ORDER BY
	DATE	HOUR	DATE	HOUR	
UNION	12-14-56	8- AM	12-14-56	3:45 PM	Maynard + Storm High Water YBS
VERONA AVE	"	8:15 "	"	4- "	
CLAY ST	"	8:30 "	12-17-56	8- AM	
FREEMAN ST	"	8:45 "	"	8:15 "	
POLK ST	"	9- "	"	8:30 "	
JACKSON ST	"	9:15 "	"	8:45 "	
RECTOR ST	"	9:30 "	"	9- "	
4th AVE	"	9:45 "	"	9:15 "	
HERBERT PL	"	10- "	"	9:30 "	
YANTACAW	"	1:30 PM	12-15-56	9:45 AM	

LINE	OUT DATE	OUT HOUR	IN DATE	IN HOUR	ORDER BY
UNION	10-31-56	11.30 AM	10-31-56	7:15 PM	
VERONA AVE	"	11.45 "	"	7.30 "	
CLAY ST	"	12:- N	"	7:45 "	
FREEMAN ST	"	12:15 PM	11-4-56	1:15 PM	
POLK ST	"	12:30 "	"	1:- PM	
JACKSON ST	"	12:45 "	"	12:45 PM	
RECTOR ST	"	1:- "	"	12:15 PM	
4th AVE	"	1:15 "	10-31-56	8:- PM	
HERBERT PL	"	1:30 "	"	8:15 "	
VANTACAW	"	3:- "	11-1-56	8:30 AM	
UNION	11-1-56	10:- AM	11-4-56	11:- "	
VERONA AVE	"	10:15 "	11-1-56	4:- PM	
CLAY ST	"	10:30 "	11-4-56	12:- N	
4th AVE	"	10:45 "	11-4-56	11:45 AM	
HERBERT PL	"	11:- "	11-4-56	11:30 AM	

Marquardt + Stein to Water Storm 4/3/85

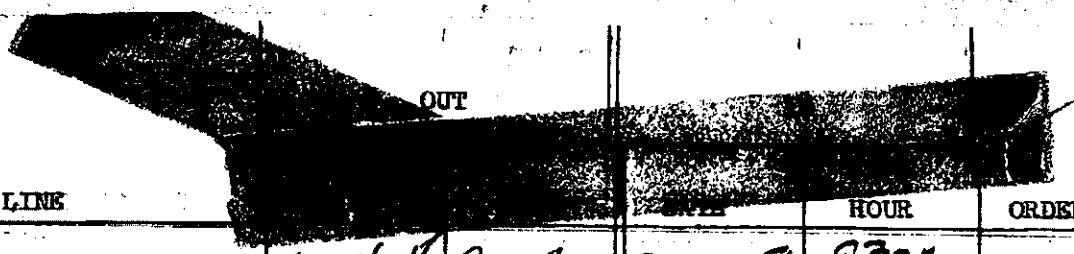
(NOTE:)

Disregard these By Passing for computations. S.L.

ABC013552

LINE	OUT		IN		ORDER BY
	DATE	HOUR	DATE	HOUR	
Union	9-6-56	6:- PM	9-6-56	10:20 PM	B Anderson High Water [illegible] Storm:
Verona Ave	"	6:15 "	9-7-56	8:- AM	
Herbert Pl	"	6:30 "	"	8:15 "	
4th Ave	"	6:45 "	"	8:30 "	
Clay St	"	7:- "	"	8:45 "	
Rector St	"	7:15 "	"	9:- "	
Polk St	"	7:45 "	"	9:15 "	
Freeman St	"	8:- "	"	9:30 "	
Yantacaw	"	8:45 "	9-6-56	11:- PM	
Jackson St	"	7:30 "	9-7-56	10: AM	

ABC013556



LINE		OUT		IN	HOUR	ORDER BY
UNION		3-14-56	9- AM	3-15-56	8.30 AM	Management
VERONA	AVE	"	9.15 "	"	9.- "	
CLAY	ST.	"	9.30 "	"	9.15 "	
RECTOR	ST.	"	9.45 "	"	9.30 "	
FREEMAN	ST.	"	10.- "	"	9.45 "	
POLK	ST.	"	10.15 "	"	10 - "	
JACKSON	ST.	"	10,30 "	"	10.15 "	
HERBERT	ST.	"	10.45 "	"	10.30 "	
VANBRUNT		"	11.30 "	3-14-56	3-PM	

ABC013571

Line	Out Date	Out Hour	In Date	In Hour	Ordered By
Union	2-18-56	8:15 AM	2-18-56	3:15 PM	Superintendent [illegible] Water Depts
Verona Ave	"	8:30 "	2-19-56	8 AM	
Herbert Pl	"	8:45 "	"	8:15 "	
[illegible] Ave	"	9 "	"	8:30 "	
Clay St	"	9:15 "	"	8:45 "	
Rector St	"	9:30 "	"	9 "	
Jackson St	"	9:45 "	"	9:15 "	
Polk St	"	10 "	"	9:30 "	
Freeman St	"	10:15 "	"	9:45 "	
Jantasaw	"	11 "	2-18-56	2:20 PM	

ABC013573

OUT

Line	Date	Hour	Date	Hour	Ordered
Union	2-6-56	3:30 PM	2-7-56	8:15 AM	Marquardt Storm / High Water 2/6/56
Verona Ave	"	3:45 "	"	12:30 PM	
Herbert Pl.	"	4:00 "	"	12:45 "	
4th Ave	"	4:15 "	"	1:00 "	
Clay St.	"	4:30 "	"	1:15 "	
Rector St.	"	4:45 "	"	1:30 "	
Jackson St.	"	5:00 "	"	1:45 "	
Polk St.	"	5:15 "	"	2:00 "	
Freeman St.	"	5:30 "	"	2:15 "	
Yantacaw	"	9:30 "	2-7-56	9 AM	

ABC013574

LINE	OUT DATE	OUT HOUR	IN DATE	IN HOUR	ORDER BY
Union	2-26-57	3.30 PM	2-26-57	10.15 PM	[illegible]
Verona Ave	"	3.45 "	"	10.30 PM	
Clay St	"	4.- "	2-27-57	1.- PM	
Freeman St	"	4.15 "	"	1.15 "	
Polk St	"	4.30 "	"	1.30 "	
Jackson St	"	4.45 "	"	1.45 "	
Rector St	"	5.- "	"	2. "	
4th Ave	"	5.15 "	"	2.15 "	
Memphis [illegible]	"	5.30 "	"	2.30 "	
[illegible]	"	7- "	2-27-57	8.30 AM	

ABC013516

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
UNION	5-14-57	8:45 PM	5-15-57	12:30 AM	Storm High Water Stops Mesquite
VERONA	"	9 – "	"	10:45 "	
HERBERT	"	9:15 "	"	11 – "	
FREEMAN	"	9:30 "	"	11:15 "	
POLK	"	9:45 "	"	11:30 "	
JACKSON	"	10 – "	"	11:45 "	
RECTOR	"	10:15 "	"	12 – N	
11th AVE	"	10:30 "	"	12:15 PM	
CLAY	"	10:45 "	"	12:30 "	
VANTREASE	5-15-57	11:15 PM	5-16-57	8:55 AM	

ABC013528

	OUT		IN		
LINE	DATE	HOUR	DATE	HOUR	ORDER BY
UNION	3-15-57	8.15 PM	3-16-57	12.15 AM	Marquardt Storm High Water 5/16/58
VERONA AVE	"	8.30 "	"	9.30 "	
YANTACAW	"	10.50 "	"	12.15	

TIME	PUMPING AT N.B.P.S.	ELEVATION AT N.B.P.S. SUCTION SEWER (ABOVE INVERT)	SECOND RIVER METERS	UNION OUTLET	SO. 4th ST. METER	COMMENTS
Sat. May 31 12 N.	182	9.0	83	26.0	25.+	
Sun. June 1						
1:00 a.m.	198	9.0		26.5	24.0	
2:00	207	10.3		26.7	15.0	
2:05	210	11.2				
2:15	275	10.0				
2:30	275	9.8				
3:00	272	9.7	112	31.5	14.0	
4:00	267	9.6		37.0	15.0	Yantacaw to River
4:45	268	9.8	135			Verona Ave. Back to Line
5:00	268	10.8		38.5	22.0	
5:15	267	10.5				
5:30	196	10.1				
5:45	195	10.0				
6:00	178	10.2	53	38.5	25+	
6:15	176	10.2				
6:25	175	9.8				
6:30	150	9.6				
7:00	147	9.6		38.5	25.0	Yantacaw to Line
7:45	144	8.7	22			
7:50	134	8.6				
8:00	132	8.4		38.0	16.0	
8:45	128	8.0				
8:50	114	8.0				
9:00	112	8.1	108	38.5	19.0	
9:15	140	8.5				
9:30	145	9.7			25 +	
9:45	175	10.8			Meter	
10:00	177	11.6		42.0	Out	Yantacaw to River
10:10	300	12.5			Of	
10:15	275	11.2	143		Order	Verona Ave. to River.
11:00	270	11.2		44.0		
12 N.	265	10.5	50	44.0		
1:00 p.m.	259	9.6		43.0		
1:30	257	9.0				
1:45	256	10.0				
1:50	223	10.0				
2:00	222	10.0		43.5		
3:00	218	9.7	22	43.0		
4:00	215	9.2		43.0		
5:00	215	9.2		43.2		
6:00	219	9.8	20	43.5		
7:00	218	9.4		43.5		

TIME	PUMPING AT N.B.P.S.	ELEVATION AT N.B.P.S. SUCTION SEWER (ABOVE INVERT)	SECOND RIVER METERS	UNION OUTLET	SO. 4TH ST. METER	COMMENTS
Sun. June 1						
7:30 p.m.	216	8.9				
7:35	205	8.9				
8:00	200	8.7		43.5		
9:00	197	8.5	19	43.5		
9:05	178	8.5				
10:00	174	8.6		43.0		
11:00	170	8.5		42.8		
12 M.	170	8.5	17	42.5		
Mon. June 2						
1:00 a.m.	168	8.1		42.3		
2:00	166	7.8		42.0		
3:00	165	7.8	17	41.5		
3:30	164	7.5			Meter Out Of Order	
3:35	145	7.5				
4:00	145	8.0		41.0		
5:00	149	8.4		40.5		
6:00	149	9.1	17	40.2		
7:00	149	9.7		40.0		
8:00	150	11.4	17	40.0		
9:00					18.3	

Starting at 9:30 Yantacaw, Verona Ave., Herbert Pl., 4th Ave. & Clay St. were put back into the line.

LINE	OUT DATE	OUT HOUR	IN DATE	IN HOUR	ORDER BY
Union	10-22-58	6:00 PM	10-23-58	6:10 PM	Lieut. Hugh Walsh NBPS Chief of Lighting
47th Ave	"	7:30 "	10-24-58	10:30 AM	
Herbert Pl	"	7:45 "	"	9:00 "	
Clay St	"	8:00 "	"	9:15 "	
Rector St	"	10:30 "	"	9:30 "	
Polk St	10-23-58	3:15 AM	"	10:00 "	
Freeman St	"	3:30 "	"	9:45 "	
Jackson St	"	3:00 "		10:15 "	
Saybrook Pl	"	2:30 "	10-23-58	3:35 PM	
Verona Ave	"	2:15 "	10-23-58	3:20 PM	
Yantacaw	"	5:00 "	10-23-58	1:30 PM	

ABC013489

PASSAIC VALLEY SEWERAGE COMMISSIONERS

BYPASSING REPORT

BYPASSING LOCATION	THROWN OUT		THROWN IN		ORDERED BY
	DATE	TIME	DATE	TIME	
Vantacaw St.	11-4-59	7.30 PM	11-4-59	11.00 PM	Per Inspector Tom Walter Fisher "C" by [illegible]

ABC013453

PASSAIC VALLEY SEWERAGE COMMISSIONERS
BYPASSING REPORT

BYPASSING LOCATION	THROWN OUT		THROWN IN		ORDERED BY
	DATE	TIME	DATE	TIME	
Yantacaw	10-14-19	8:00PM	10-15-19	12:30AM	[illegible]

ABC013457

PASSAIC VALLEY SEWERAGE COMMISSIONERS

BYPASSING REPORT

BYPASSING LOCATION	THROWN OUT		THROWN IN		ORDERED BY
	DATE	TIME	DATE	TIME	
ANTACAW	8-13-59	7⁰⁰ PM	8-13-59	10.45 PM	CHIEF. ENGR
	A.J.		P.S.		S.A. LUBETKIN.

ABC013466

PASSAIC VALLEY SEWERAGE COMMISSIONERS

BYPASSING REPORT

BYPASSING LOCATION	THROWN OUT		THROWN IN		ORDERED BY
	DATE	TIME	DATE	TIME	
Union	7-24-59	3:30 PM	7-24-59	5:41 PM	
Vantacaw	7-26-59	2:30 AM	7-26-59	10:00 AM	Storm High Water NBPS - J Perry

ABC013470

PASSAIC VALLEY SEWERAGE COMMISSIONERS

BYPASSING REPORT

BYPASSING LOCATION	THROWN OUT		THROWN IN		ORDERED BY
	DATE	TIME	DATE	TIME	
YANTACAW	6-1-61	3:00PM	6-2-61	9:15AM	EMERGENCY WORK-PHOTOGRAPHING OF MAIN SEWER LINE-ORDERED OUT BY E. MOLLER

ABC013383

PASSAIC VALLEY SEWERAGE COMMISSIONERS

BYPASSING REPORT

BYPASSING LOCATION	THROWN OUT		THROWN IN		ORDERED BY
	DATE	TIME	DATE	TIME	
YANTACAW	5-3-61	3:00PM	5-4-61	12:10AM	EMERGENCY-TO ALLOW FOR PHOTO-ORDERED OFF BY DEPUTY ENGINEER EDWARD MOLLER

ABC013386

1963

	M.G. BYPASS	M.G.D. BYPASS	% OF TOTAL FLOW (73,823.33)
YANTACAW	114.10	.31	0.1546 %
UNION OUTLET	811.44	2.23	1.0992 %
NEWARK	2,730.21	7.48	3.6983 %
PATERSON	270.55	.74	.3665 %
TOTAL	3,926.30	10.76	5.3186 %
TOTAL RECORDED	69,897.03	191.50	
	73,823.33	202.26	

BY PASSING as of Nov 18, 1963 — 83.66%

YANTACAW =	16.30	1524.18 Avg 6
UNION OUTLET =	109.90	62.65
NEWARK	377.94	
PATERSON	38.65	
46	537.79	

11.69 M.G.D.

Sometimes, in addition, flow from the Newark South Side interceptor is throttled or shut off at its connection to the main intercepting sewer. As the storm abates and the water level starts receding, the previous emergency steps are reversed until normal operation is resumed.

The flow and water level data for the storms of February 3 and April 2, 1970 was recorded and used in the hydraulic studies of the intercepting system. No bypassing to the river (from the intercepting system) was required on April 2, when all four pumps were operating at Newark Bay Pumping Station. At the prevailing high tides, however, it is necessary to direct approximately one-half the flow into Newark Bay, since the inadequate hydraulic capacity of the outfall would result in basin overflows. Normal operating procedure would require three pumps operating and one in reserve, with flow bypassed to the river from the interceptor through the Newark reach, as was the case on February 3, 1970.

Flooding occurs in many communities in low areas during storms. Additionally, if the Passaic River levels are high enough to preclude natural drainage of the low areas, little can be done to relieve these areas of flooding, short of pumping or the installation of flood control works.

Flooding of these areas can occur, moreover, during low river levels if overflows or bypasses to the river are inadequately sized or malfunctioning. It is essential, therefore, that the street catch basins and the sewers leading to the overflows have large enough capacity to carry the water to the river without a large head loss. Without sufficient overflow capacity, the levels in the intercepting sewer and thence in the local sewer would rise high enough to cause local problems.

Almost all of the overflows in the upper end of the intercepting sewer are automatic in the sense that overflow to the river occurs when the gradient of the interceptor reaches a designated level. However, unless there is sufficient capacity in the interceptor, it is impossible to set the overflows at a proper level to protect the river from pollution.

The only point of bypass directly from the main intercepting sewer is at Yantacaw (Third River), 47,491 feet upstream of the Newark Bay Pumping Station. Here it is possible to bypass (if necessary) all incoming intercepted flows from Clifton, Passaic and Paterson, as well as the flow from several other smaller upland communities. Bypassing at Yantacaw Pumping Station, with high river stage, can cause surcharge of the interceptor above Yantacaw. Bypassing is therefore done only as a last resort, as an emergency measure to protect the main pumping station during an exceptionally large storm and/or a breakdown at this station.

As indicated in Chapters VI and XIV, inadequate pumping and outfall capacities are responsible for extremely difficult conditions during wet weather flows. Even with all four pumps in operation (no standby), the pumping capacity of approximately 550 mgd is inadequate, gauged against the required present peak of 633 mgd, when regulated. For example, in 1969, the two diesel-driven pumps were simultaneously down for repairs for a period of several months, reducing the Newark Bay Pumping Station capacity to less than 300 mgd and requiring the excess storm flows

Special Report #3 - (From March 1974 Report)

Crack Repair Under McCarter Highway

We were certainly glad when the month of March was over. The month started with problems; they then went from bad to worse, but we are finally recovered.

In order that you may understand what happened, you must go back in time to April 1973, when the PVSC personnel investigated the reason for a large depression developing in the concrete roadway of the northbound lane of Route 21 Freeway.

On April 9, 1973, an internal inspection was made of the PVSC 10'-10" diameter interceptor via the manhole at the point of depression. Since the sewage level was approximately seven feet, this inspection was confined to visual observations from a platform which had been suspended in the manhole. Cracks were seen in the crown of the interceptor, both upstream and downstream of the manhole, and cracking was also observed in the barrel of the manhole at the intersection of the barrel with the crown of the interceptor. Based on these observations, it was deemed necessary to make a more thorough internal inspection which would involve by-passing of sewage so as to lower the water level in the interceptor.

This was done on April 16, 1973 when, at approximately 3 A.M., the water level in the sewer was brought down to 3 feet by diverting sewage into the Passaic River at Yantacaw and Newark. An inspection team, including a photographer, examined and evaluated approximately 6,200 feet of trunk sewer.

This examination disclosed that, with the exception of approximately 151 feet around the manhole at Riverside Avenue, Newark, the sewer was in good structural condition. However, there was a huge pile of debris south of Herbert Place, Newark, and, of course, there were longitudinal crown cracks extending approximately 75 feet north of the manhole to 76 feet south of this manhole, in addition to some random transverse cracks at the Riverside Avenue manhole.

The original sewer was constructed in 1915 as a tunnel through a fine red sand, with ground water elevation about 9 feet above the crown of the sewer, so that the forces were as follows:

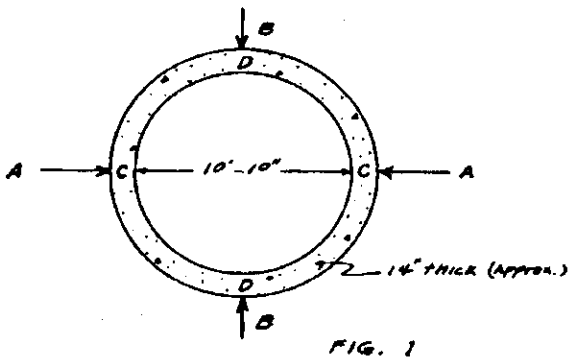


FIG. 1

You will note that forces A tend to support the non-reinforced concrete sewer, while forces B tend to crush the sewer.

This was the situation facing the Commissioners, and they knew that whichever way they chose, there would be criticism. Damned if they did, and damned if they didn't.

One of the easiest things in the world is to criticize. To be a Sunday morning quarter-back and second guess all decisions, may be satisfactory to some, but makes the poor unfortunate who must make decisions on the "firing line" feel pretty low. But even more frustrating is when the correct (although difficult) decision was made and the game won, we find we are still objects of criticism from those that know not the facts and are not even interested in finding out the truth. The ease with which some can orate and attempt to become self-appointed judges and juries to condemn without a fair evaluation of the facts and evidence, smacks of "vigilante" law, which, thank God, intelligent people avoid.

However, the people in the PVSC area have much thanks to give about the fair reporting done by the newspapers on this subject, and the wise, although difficult decisions made by the USEPA and the NJDEP on this matter, and particularly in the officials not letting themselves be stampeded by a small but vociferous few which advocated delay.

The PVSC and their consultants held further meetings with the USEPA, NJDEP, N. J. Department of Transportation, U. S. Corps of Engineers, City of Newark, and the Department of Labor and Industry, where the various ramifications of the collapsing sewer and its repair were discussed. It was finally decided, by all concerned, that despite the fact that by-passing to the river was undesirable the possibility of total collapse and the short time to do the work necessitated the by-passing to the river for a period of 23 days.

Although the time factor was the important consideration (the sewer could be repaired within four months, as compared to 1.3 years by putting in a temporary pumping station), there were other significant factors, such as:

(1) Even the temporary pumping station would require possibly 5 days by-passing while bulkheads were built and removed. Thus, we were talking about a difference of 18 days by-passing.

(2) There was approximately 150 cubic yards of rubble south of the Herbert Place connection which could be removed while the internal repair with by-passing was being done. We could not clean this section if the temporary pumping station was built.

(3) The remaining sewer to the Newark Bay Pumping Station could be given an internal inspection and an infiltration/inflow analysis could be made which could only be accomplished by total by-passing at another date.

Incidental to the above was relative costs. It was then estimated that the internal repair would cost $1.6 million as opposed to $4.2 million for the temporary pumping station method of repair. Incidental to this was also the fact that the temporary pumping station would consume approximately 39,000 gallons of fuel oil with attendant air pollution and noise, but the important factor was that waiting was too dangerous.

Therefore, it was the consensus of those making the recommendation and decisions, and I wish to report the opinion was unanimous (Federal, State and PVSC), to make the repair in the fastest practical time by allowing by-passing into the river during the month of March.

The plan seemed simple. After building a bulkhead to keep the sewerage out of the break area, 10-ton jacks were to be placed at 5 ft. intervals to support the sewer while the scum was cleaned from the walls and the cracks caulked to stop any small leaks (see Figure 3). Steel liner plate was next to be installed, being held in proper place with sand bags (see Figure 4).

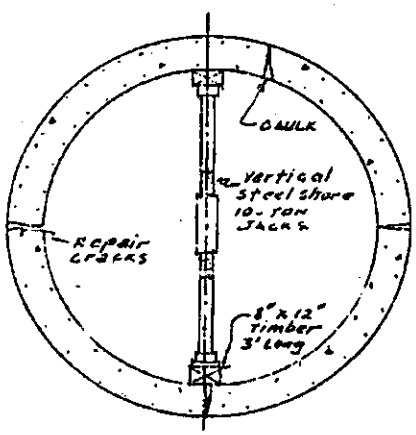


FIG. 3

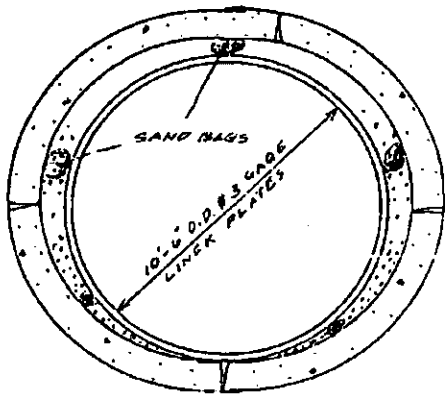


FIG. 4

The space between the old sewer and the steel liner plate was then to be pumped full with grout (see Figure 5). Next holes were drilled thru the concrete sewer and grout was to be pumped into the spaces around the sewer for lateral support and to fill some of the voids that had been created (see Figure 6). Then followed deep drilling and the pumping of grout further around the sewer and filling the remaining voids (see Figure 7). Then steel wire mesh was placed over the steel liner plate and the whole surface was gunnited with a liner of dense concrete, thus protecting the steel (see Figure 8).

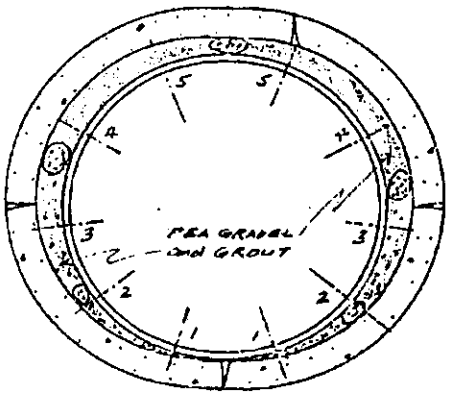


FIG. 5

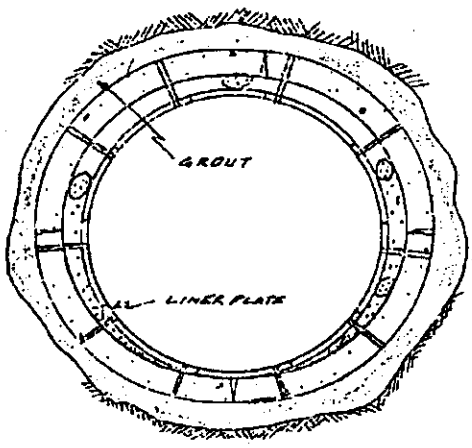


FIG. 6

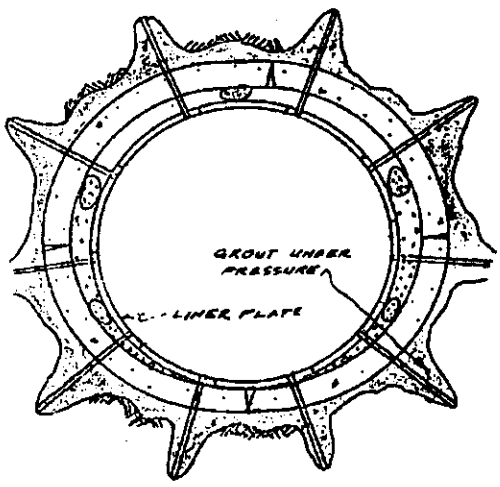


FIG. 7

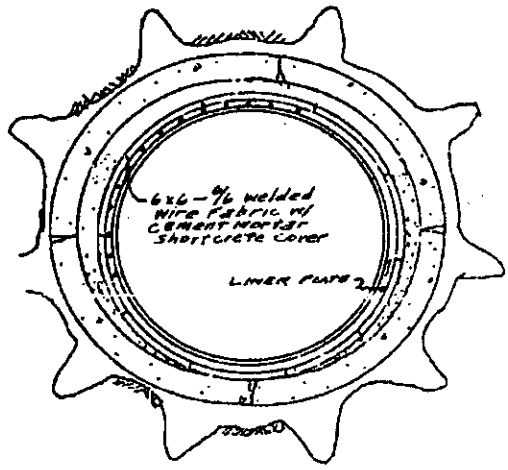


FIG. 8

At least, that was the way it was supposed to work, but several things happened. First, while re-building the manhole and re-routing traffic, the pavement slab started to bounce with the traffic, just as a beam supported on both ends flexes when a weight is put in the middle. The contractor was ordered to immediately pump grout under the slab to fill the voids and maintain stability.

The second, and most scary of the unscheduled events occurred after the jacks were installed and the sewer dewatered. The fine sand surrounding the sewer started to come into the invert crack at a rapid rate and the sewer collapsed further as the lateral ground support gave way, so that three of the ten ton jacks were bowed. After consulting with soil experts, the engineer ordered an immediate evacuation of the sewer and filling the sewer with water to attempt to equalize pressures and reduce the rate of soil migration. The contractor was then ordered to install a well point system to dewater the ground around the sewer so as to stabilize the soil. In other words, without water the soil would not flow into the sewer through the cracks,which by now were quite large (measuring over 20" deep and 3" to 4" wide in places).

During the planning stage, the dewatering of the ground around the sewer had been considered, but since it would create additional load on the cracking sewer (300 pounds per square foot additional), it was thought that this additional work was not warranted. Also, all inspections to date did not indicate a large flow of infiltration and there was no reason to believe that the sewer cracks seen in the inspections could not be caulked with steel wool as was the Gouverneur Street job. In view of these facts, the engineer did not specify well-points and would have prohibited them until the critical situation showed they were needed. In fact, it can only be conjecture as to whether the sewer would have failed with the additional load imposed by well points if the jacks and shores were not already in the sewer to help support this additional load.

The Engineer also ordered ten additional 20-ton jacks and additional supporting bents in the sewer.

After the well points were installed (with approximately 260 cubic yards of course sand for the 37 wells instead of a normal 75 cubic yards) and the ground dewatered, the sewer was again drained and entered. It was found that approximately 25 cubic yards of material had entered the sewer through the cracks, but the well points were then controlling the situation.

With the additional jacks and timber bents supporting the now multi-cracked assemblage of concrete which we called a sewer, there was a mad rush to install the steel liner plate, bending it to conform to the shape of the sewer rather than reduce the size. Jacks were removed, one at a time, and reinstalled over the liner plate. The back grouting behind the liner was placed after two complete liner plate rings were installed, rather than a run of 8 rings, as specified in the contract documents, thus slowing the work, but making it safer and surer.

Finally, on Wednesday, April 2, work on the internal sewer repair was completed and everybody breathed a sigh of relief. The bulkheads were removed and at 7 A.M. on Friday, April 4, we stopped the sewer by-passing which was necessitated by this repair work.

In retrospect, it was obvious that any further delay would have been catastrophic to our sewer, the surrounding highway, and

AFFIDAVIT OF SEYMOUR A. LUBETKIN

STATE OF FLORIDA §
COUNTY OF Palm Beach §

Seymour A. Lubetkin, having been duly sworn, affirms:

1. I, Seymour A. Lubetkin, was the Chief Engineer of the Passaic Valley Sewerage Commissioners ("PVSC") between 1954 and 1978. I have personal knowledge of the matters discussed in this Affidavit.

2. **Education and Employment**: I hold a Master of Civil Engineering (1957) and a Master of Science in Electrical Engineering (1950). I received a Bachelor of Science in Mechanical Engineering in 1947. I am a member of Tau Beta Pi, the national honorary engineering society, and a Diplomate to the American Academy of Environmental Engineers. I received the Dr. H. Heukelekian Industrial Waste Award from the New Jersey State and Federal Water Pollution Control Association in 1973, and the William D. Hatfield Award for Outstanding Performance in the Operation, Management and Advancement of Knowledge in the field of Water Pollution Control in 1983. I am listed in Who's Who in Engineering. I have served as an arbitrator for the New York Stock Exchange.

3. In 1950, I was employed as Assistant Chief Engineer of the PVSC. In 1954, I was promoted to the position of Chief Engineer, which I held until 1978. As Chief Engineer, I directed all operations of the PVSC, the largest sewerage authority in New Jersey. I was responsible for the annual operating budget of the PVSC, of almost $9 Million, as well as the PVSC's purchasing, investments, and accounting procedures. I directed the activities of the PVSC's more than 200 employees, including the Operating, Engineering, Inspection and Maintenance Personnel (which included the Bypass Crews).. I established pollution control programs involving industrial permits, sewer use ordinances, river and industrial monitoring and pretreatment systems. I wrote the PVSC annual reports and testified as an expert on pollution and the solutions to the problems it causes.

21. As I discuss in greater detail below, the PVSC kept accurate records of the amount of waste bypassed to the River. I have not reviewed those records in preparing this Affidavit. I have, however, reviewed the charts showing rainfall, River flow and input to the PVSC treatment plant contained in the Annual Reports for the Years 1972, 1973, 1974, 1975 and 1976. I have attached these charts to this Affidavit as Exhibit B-1 through B-10. These charts illustrate that on several occasions each year, the River flow rose significantly, but the volume received at the treatment plant fell below the average daily flow for the year. I believe that in these instances the Yantacaw Street Bypass was thrown, and the waste it carried was bypassed to the River.

22. **Repairs**: The PVSC also bypassed sewage into the Passaic River to repair the sewage lines. For example, as reported at page 55 of the Annual Report for the Year 1971, floods in August of 1971 broke the Second River Joint Meeting Sewer. A 400-foot section of the Second River Joint Meeting Sewer had to be replaced because of this break. However, because of the break, approximately 40 million gallons of waste was discharged to the river from the Second River Joint Meeting Sewer per day between August 28 to September 3, 1971. A large amount of sewage was also bypassed to the Passaic River during the repair of a major crack in the trunk line under McCarter Highway during the month of March 1974. Details of this repair and its problems are presented on page 21 of the 1974 Annual Report.

23. **Records**: The PVSC maintained accurate records of the number of bypasses and the estimated volume of bypassed material. The PVSC used these records to calculate the fees to be charged to the municipalities using the PVSC's system.

24. Each municipality using the PVSC's facilities paid a percentage of the operating expenses of the PVSC. The percentage was based on the ratio between the volume of the municipality's waste and the total waste handled by the PVSC.

25. The volume of waste contributed by each municipality was measured by flow meters. Some by direct measurement as the waste went into the PVSC line and some, such as

10/10/90

Municipal Flows - Throwout Calculations

The following procedure has been developed to equitably distribute the flows from all the municipalities in the PVSC district in the event of throwing out the line during periods of heavy rainfall. In the case of throwing out the line in Newark, a formula needs to be developed every year and is based on the previous years flows. While the main throwout is Newark, other line throwouts are Union outlet, Yantacaw (Includes every municipality above the Yantacaw pump station) and Paterson.

The procedure for determining the Newark throwout is as follows:

1. For 1990, determine the 1988 percentage of the total flow.

1988 total Newark flow - 33718.65 Million Gallons

Less 1988 Union outlet flow - 804.15 Million Gallons

Total - 32914.70 Million Gallons

1988 Plant flow - 88758.83 Million Gallons

Newark percentage - 32914.70/88758.83 = 0.370838 or 37.0838%

2. Develop throwout equation

Let N = Newark recorded flow in MGD for the week

Y = Newark bypass flow in MGD for the week

T = Total Plant flow in MGD excclusive of Jersey City and Bayonne + So. Kearny for the week

$0.370838(T + Y) = N + Y$

$0.370838T + 0.370838Y = N + Y$

$0.370838T - N = Y - 0.370838Y$

$0.370838T - N = 0.629164Y$

$0.370838T - N/0.629164 = Y$

$0.370838T/0.629164 - N/0.629164 = Y$

849170043

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED Date	OPENED Hour	CLOSED Date	CLOSED Hour	ORDERED BY	REASON
Herbert Pl	11-14-52	1 PM	12-1-52	1 PM	Van Duyne	Boiler Repairs
4th Ave	"	1.15	"	1.15	"	"
Clay St	"	1.30	"	1.30	"	"
Rector St	"	1.45	"	1.45	"	"
Saybrook Pl	"	2	"	2	"	"
City Dock	"	2.15	"	2.15	"	"
Jackson St	"	2.30	"	2.30	"	"
Polk St	"	2.45	"	2.45	"	"
Freeman St	"	3	"	3	"	"
Union	"	3.15	"	3.15	"	"
Yantacaw	11-15-52	6 PM	11-[illegible]	9 AM	"	"

PUMPING RECORD ([illegible] and 3 hrs. Following [illegible] hrs)

DATE	TIME (½ hr. Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	P.S. Sewer Water Level	Second River Main Int. Sew Water Level	REMARKS
11-14-52	10 AM				6' 2"	
"	10 30				6' 3"	
"	11 -				6' 2"	
"	11 30				6' 2"	
"	12 - N				6' 0"	
"	12 30 PM				6' 0"	
"	1 - PM				6' 1"	
11-15-52	3 - PM					
12-1-52	4 - PM				6. 8"	
"	4 30				6. 8"	
"	5 -				6. 8"	
"	5 30				6 6"	
"	6 -				6 6"	

REMARKS:

ABC013721

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHIEF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
	Date	Hour	Date	Hour		
UNION	12-2-52	1-PM	12-4-52	1-PM	VAN DYNE	RAIN - CLEAR
VERONA AVE	"	115 "	"	115 "	"	"
HERBERT PL	"	130 "	"	130 "	"	"
4 AVE	"	145 "	"	145 "	"	"
CLAY ST	"	2- "	"	6- "	"	"
HECTOR ST	"	215 "	12-8-52	9-AM	"	"
SAYBROOK PL	"	230 "	"	915 "	"	"
CITY DOCK	"	245 "	"	930 "	"	"
JACKSON ST	"	3- "	"	945 "	"	"
POLK ST	"	315 "	"	10- "	"	"
FREEMAN ST	"	330 "	"	1015 "	"	"
YANTACAW	12-5-52	2- "	12-6-52	8-AM	"	"

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr. Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk. Bay P.S. Suct. Sewer Water Level	Second River Main Int. Sew Water Level	REMARKS
12-2-52	10-AM					5FT-10
"	1030 "					6FT-0
"	11- "					6FT-6
"	1130 "					6FT-2
"	12-N					5FT-0
"	1230 PM					5FT-0
"	1- "					5FT-0
12-3-52	11-AM					5FT-6
"	2-PM					6FT-10
"	230 "					5FT-6
"	300 "					4FT-6
12-8-52	6-AM					3FT-10
"	630 "					3FT-10
"	7- "					3FT-10
"	730 "					3FT-10
12-6-52	8-AM.					2FT-4

REMARKS:

ABC013722

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
	Date	Hour	Date	Hour		
Yantacaw	11-2-√2	8- AM	11-2-√2	1- PM		
Union	"	8 15 "	"	1 15 "		
Verona Ave	"	8 30 "	"	1 30 "		
Herbert Pl.	"	8 45 "	"	1 45 "		
4th Ave	"	9- "	"	2- "		
Clay St	"	9 15 "	"	2 15 "		
Rector St	"	9 30 "	"	2 30 "		
Saybrook Pl	"	9 45 "	"	2 45 "		

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr. Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk. Bay P.S. Suct. Sewer Water Level	Second River Main Int. Sew Water Level	REMARKS
11-2-√2	√- AM				3' 10"	
"	√ 30 "				3' 8"	
"	6- "				3' 8"	
"	6 30 "				3' 8"	
"	7- "				3' 8"	
"	7 30 "				3' 8"	
"	√- "				3' 8"	
11-2-√2	4- PM				4' 6"	
"	4 30 "				4' 7"	
"	√- "				4' 6"	
"	√ 30 "				4' 6"	
"	6- "				4' 3"	
"	6 30 "				4' 3"	

REMARKS:

ABC013725

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
	Date	Hour	Date	Hour		
Dixon	10-2-52	6 - PM	10-2-52	9.30 PM		RAIN - CLEAR
Vernon Ave	"	6 15 "	"	10 - PM		" "
Herbert Pl	"	6 30 "	10-3-52	1 - "		" "
4th Ave	"	6 45 "	"	1 15 "		" "
Clay St	"	7 - "	"	1 30 "		" "
Rector St	"	7 15 "	"	1 45 "		" "
Saybrook Pl	"	7 30 "	"	2 - "		" "
City Dock	"	7 45 "	"	2 15 "		" "
Jackson St	"	8 - "	"	2 30 "		" "
Polk St	"	8 15 "	"	2 45 "		" "
Freeman St	"	8 30 "	"	3 - "		" "
Yantacaw	"	9 - "	10-3-52	8 - AM		" "

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr. Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk. Bay P.S. Suct. Sewer Water Level	Second River Main Int. Sew Water Level	REMARKS
10-2-52	3 - PM				6 FT - 6	
"	3 30 "				6 FT - 7	
"	4 - "				6 FT - 7	
"	4 30 "				6 FT - 6	
"	5 - "				6 FT - 6	
"	5 - 30 "				6 FT - 6	
"	6 - "				7 FT - 0	
"	12.30 "				6 FT - 4	
"	1 - "				6 FT - 4	
10-3-52	4 - "				6 FT - 6	
"	4 30 "				6 FT - 4	
"	5 - "				6 FT - 4	
"	6 - "				6 FT - 4	
REMARKS: "	11 - AM				5 FT - 10	

ABC013727

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
	Date	Hour	Date	Hour		
1 VAN ARSDALE	6-19-52	12.30 PM	6-20-52	8.15 AM	M.B. ANDERSON	HIGH WATER
2 FREEMAN ST	"	1.30 "		8.30 "	"	"
3 POLK ST	"	1.45 "		8.35 "	"	"
4 JACKSON ST	"	2.00 "		8.45 "	"	"
5 CITY DOCK	"	2.15 "		9.00 "	"	"
6 SAYBROOK PL	"	2.30 "		9.15 "	"	"
7 RECTOR ST	"	3.00 "		9.30 "	"	"
8 CLAY ST	"	3.15 "		9.45 "	"	"
9 4TH AVE	"	3.30 "		10.00 "	"	"
10 HERBERT PL	"	3.45 "		10.15 "	"	"
11 VERONA AVE	"	4.00 "		10.30 "	"	"
12 UNION	"	4.15 "		10.45 "	"	"

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr. Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk. Bay P.S. Suct. Sewer Water Level	Second River Main Int. Sew Water Level	REMARKS
6-19-52	10.30 AM				6' 6"	BEFORE
"	11 "				6' 8"	"
"	11.30 "				6' 8"	"
"	12 Noon				6' 8"	"
"	12.30 PM				7'	"
"	1 "				7'	"
"	1.30 "				7'	"
6-20-52	11.15 AM				7.01"	AFTER
"	11.45 "				7'11"	"
"	12.15 "				6'8"	"
"	12.45 "				6' 6"	"
"	1.15 "				6' 4"	"
"	1.45 "				6' 4"	"
"	2.15 "				6' 4"	"

REMARKS:

ABC013754

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
	Date	Hour	Date	Hour		
1 UNION	6-17-57	4.30 PM	6-17-57	8.40 PM	B ANDERSON	HIGH WATER
2 VERONA AVE	"	4.40 "	"	8.50 "	"	"
3 HERBERT PL	"	5.00 "	6-18-57	10.30 AM	"	"
4 4TH AVE	"	5.15 "	"	11.40 "	"	"
5 CLAY ST	"	5.30 "	"	11.30 "	"	"
6 RECTOR ST	"	5.40 "	"	1.30 PM	"	"
7 SAYBROOK PL	"	6.00 "	"	2.00 "	"	"
8 CITY DOCK	"	6.15 "	"	2.30 "	"	"
9 JACKSON ST	"	6.30 "	"	3.00 "	"	"
10 POLK ST	"	6.45 "	"	3.15 "	"	"
11 FREEMAN ST	"	7.00 "	"	5.30 "	"	"
12 [illegible]	"	8.30 "	"	8.30	"	"

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr. Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk. Bay P.S. Suct. Sewer Water Level	Second River Main Int. Sew Water Level	REMARKS
6-17-57	1.30 PM				7 FT - 0	BEFORE
"	2.00 "				7 FT - 2	"
"	2.30 "				7 FT - 2	"
"	3.00 "				7 FT - 4	"
"	3.30 "				7 FT - 5	"
"	4.00 "				7 FT - 5	"
"	4.30 "				7 FT - 4	"
6-18-57	6.30 "				7 FT - 4	AFTER
"	7.00 "				7 FT - 2	"
"	7.30 "				7 FT - 2	"
"	8.00 "				7 FT - 2	"
"	8.30 "				7 FT - 1	"
"	9.00 "				7 FT - 1	"

REMARKS:

ABC013755

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

P-3-

LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
	Date	Hour	Date	Hour		
[illegible]-ST	[illegible]	3:45 PM	June 14-52	10 A M	L.B. Anderson	CLEAR
[illegible]	"	4-PM	" 14"	10:15 AM	"	"
City-Dock	"	4:45 PM	" 14"	10:30 AM	"	"
[illegible]-ST	"	4:40 PM	" 14"	10:45 AM	"	"
Polk-ST	"	5:15 PM	" 14"	11 AM	"	"
[illegible]-ST	"	5:45 PM	" 14"	11:15 AM	"	"
[illegible]-ST	June 3-52	11:45 AM	June 4-52	10 AM	"	CLEAR
4th AVE	"	12:15 Noon	June 4-52	9:45 AM	"	CLEAR
[illegible]-Pl	"	12:45 PM	June 4-52	9:30 AM	"	CLEAR
[illegible]-Outlet	June 4-52	5-PM	June 4-52	9 AM	"	Rain - CLEAR
[illegible]	4	9-PM	June 5-52	9 A M	"	Rain - CLEAR
[illegible]	9	8 AM	June 11-52	4:30 PM	"	High Water
[illegible]	9	8:30 AM	" 10"	5-PM	"	" "
[illegible]	9	8:45 A M	June 14-52	9 AM	"	CLEAR

ABC013756

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

P-4-

LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
	Date	Hour	Date	Hour		
4TH AVE	June 9-52	9AM	June 14-52	9:30 AM	L. B. Anderson	Boiler-Break
CLAY-ST	" 9 "	9:15 AM	" 14 "	9:45 AM	"	Heavy-Rain
YANTACAW-S/A	" 9 "	2:30 PM	June 14-52	8:30 AM	"	" " -CLEAR-
YANTACAW-S/A	" 10 "	4-PM	" 11 "	8:20 AM	"	High-Water — Low-Water
UNION-OUT-LET	" 11 "	1:45 PM	" 11 "	4:45 PM	"	High-Water — — —
VERONA-AVE	" 11 "	2-PM	" 11 "	5-PM	"	" " — — —
YANTACAW-STA	" 11 "	4-PM	" 12 "	8:30 AM	"	" " — Low-Water
~~Union-Out-Let~~	~~" 12 "~~	~~3-PM~~			"	~~High-Water~~ —
YANTACAW S/A	12	3-PM	" 13 "	9AM	"	Boiler-Repair-

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr.Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk.Bay P.S. Suct. Sewer Water Level	Second River Main Int.Sew Water Level	REMARKS
June-14-1952	11:15 AM				5 FT - 10	AFTER
"	11:45 AM				6 FT - 0	"
"	11:15 AM				6 FT - 0	"
"	11:45 AM				6 FT - 2	"
"	12:15 NOON				6 FT - 2	"
"	12:45 P.M				6 FT - 2	"
"	1:15 PM				6 FT - 2	"

REMARKS: ______________________________

ABC013757

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

ON-2

	LOCATION OF OVERFLOW	OPENED Date	OPENED Hour	CLOSED Date	CLOSED Hour	ORDERED BY	REASON
1	[illegible]-ST	5-29-52	3:25 PM	6-2-52	10:30 AM	L.D. ANDERSON	HIGH-WATER-
2	[illegible]-ST	"	3:45 PM			"	"
3	[illegible]-PL	"	4-PM			"	"
4	City-Hock	"	4:15 PM			"	"
5	[illegible]-ST	"	4:40 PM			"	"
6	[illegible]-ST	"	5:15 PM			"	"
7	FREEMAN-ST	"	5:45 PM			"	"
8	[illegible] AVE	"	6:15 PM	5-30-52	9:30 AM	"	" CLEAR
9	HERBERT-PL	"	6:30 PM	6-3-52	10-AM	"	RAIN — RAIN-CLEAR
10	[illegible]	"	[illegible]	[illegible]	[illegible]	"	" — "
11	[illegible]	5-30-52	3:25 PM	5-31-52	8:25 AM	"	" — "
	[illegible]-STR	6-1-52	4-AM	6-1-52	9AM	"	" — "
	[illegible]-STR	6-1-52	10-AM	6-2-52	9:30 AM	"	" — "
	[illegible]	6-2-52	2:30 PM	6-3-52	9AM	"	HIGH-WATER-CLEAR
	[illegible] AVE	6-2-52	2:45 PM	6-3-52	9:30 AM	"	" " "

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr. Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk. Bay P.S. Suct. Sewer Water Level	Second River Main Int. Sew Water Level	REMARKS
MAY-29-1952	12:30 NOON				2 FT - 2	BEFORE
"	1-P-M				2 FT - 4	"
"	1:30 PM				2 FT - 5	"
"	2-P-M				2 FT - 6	"
"	2:30 PM				2 FT - 7	"
"	3-PM				2 FT - 8	"
"	3:30 PM				2 FT - 10	"
						AFTER

REMARKS:

ABC013758

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

	LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON	
		Date	Hour	Date	Hour			
1	UNION-OUTLET	MAY-25-52	8 30 AM	MAY-26-52	1 30 PM		RAIN	RAIN
2	VERONA-AVE	"	8 45 AM	"	1 45 PM		"	"
3	HERBERT-PL	"	9-A-M	" 27 "	8 45 AM		"	CLEAR
4	4TH AVE	"	9 15 AM	" 27 "	9-A-M		"	"
5	CLAY-ST	"	9 30 AM	" 27 "	9 30 AM		"	"
6	RECTOR-ST	"	9 45 AM	" 27 "	1-PM		"	"
7	BAYBROOK-PL	"	10-A-M	" 27 "	1 15 PM		"	"
8	PENN-RR	"	10 15 AM	" 27 "	1 30 PM		"	"
9	JACKSON-ST	"	10 30 AM	" 27 "	1 45 PM		"	"
10	POLK-ST	"	10 45 AM	" 27 "	2-PM		"	"
11	FREEMAN-ST	"	11-A-M	" 27 "	2 30 PM		"	
12	SAN JACINTO-STA	"	11 30 AM	MAY-26-52	9 30 AM		"	CLEAR
13	[illegible] OUTLET	26	10-A-M	" 27 "	8-A-M		"	"
[illegible]	[illegible] AVE	"	10 15 AM	27	8 30 AM		"	"

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr. Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk. Bay P.S. Suct. Sewer Water Level	Second River Main Int. Sew Water Level	REMARKS
MAY-25-1952	5 30 AM				[illegible] FT - 6	BEFORE
"	6-A-M				[illegible] FT - 8	"
"	6 30 AM				[illegible] FT - 10	"
"	7-A-M				[illegible] FT - 0	"
"	7 30 AM				[illegible] FT - 10	"
"	8-A-M				[illegible] FT - 10	"
"	8 30 AM				[illegible] FT - 10	"
"	2 30 PM				8 FT - 2	AFTER
"	3-PM				8 FT - 2	"
"	3 30 PM				8 FT - 4	"
"	4-PM				8 FT - 4	"
"	4 30 PM				8 FT - 4	"
"	5-PM	—	—	—	8 FT - 4	"
REMARKS:	5 30 PM	—	—	—	8 FT - 3	"

ABC013760

P.1

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

ON-2-

	LOCATION OF OVERFLOW	OPENED Date	OPENED Hour	CLOSED Date	CLOSED Hour	ORDERED BY	REASON	
1	[illegible] OUT-LET	May-16-52	7-AM	May-17-52	9-AM	H. ANDERSON	RAIN—	CLEAR
2	VERONA AVE	"	7 13 AM	May-17-52	9 20 AM	"	"	"
3	HERBERT-ST	"	7 39 AM	" 23 "	1-PM	"	"	"
4	4TH AVE	"	7 45 AM	" 22 "	2 15 PM	"	"	"
5	CLAY-ST	"	8-AM	" 23 "	2 20 PM	"	"	"
6	RECTOR-ST	"	8 15 AM	" 22 "	3-PM	"	"	"
7	STIRLING BROOK-PL	"	8 30 AM	" 23 "	3 15 PM	"	"	"
8	PENNA-R-R	"	8 45 AM	" 22 "	3 30 PM	"	"	"
9	JACKSON-ST	"	9-A-M	" 22 "	3 45 PM	"	"	"
10	POLK-ST	"	9 15 AM	" 23 "	3 [illegible] PM	"	"	"
11	FREEMAN	"	10-AM	" 23 "	4 PM	"	"	"
12	UNION OUT-LET	19	6-PM	May-20-52	7 20 PM	"	"	LIGHT-RAIN
13	[illegible] AVE	19	6 20 PM	May-20-52	2 45 PM	"	"	"
14	[illegible] ST	20	11 AM	May-21-52	9 20 AM	"	"	CLEAR
15	UNION OUT-LET	21	3 PM	" 22 "	9 AM	"	MAIN-WATER	"
16	VREDEN-AVE	21	3 30 PM	" 22 "	9 30 AM	"	"	"

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr. Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk. Bay P.S. Suct. Sewer Water Level	Second River Main Int. Sew Water Level	REMARKS
May-16TH 52	3-A-M				4 FT - 8	BEFORE—
"	4 30 AM				4 FT - 8	"
"	5-AM				5 FT - 0	"
"	5 30 AM				5 FT - 0	"
"	6-AM				5 FT - 2	"
"	6 30 AM				5 FT - 4	"
"	7-AM				5 FT - 4	"
22ND	4-PM				7 FT - 0	AFTER
"	4 30 PM				7 FT - 0	"
"	5-PM				7 FT - 0	"
"	5 30 PM				7 FT - 0	"
"	6-PM				7 FT - 0	"
REMARKS:	6 30 PM				6 FT - 10	"
"	7-PM				6 FT - 10	"

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

	LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
		Date	Hour	Date	Hour		
1	UNION OUTLET	5-11-52	9-PM	5-12-52	9 AM	MARQUARDT	RAIN — CLEAR
2	ELIZ. NEWARK-NJ	5-11-52	10-PM	5-14-52	2:30 PM	"	"
3	VAILSBURG-STA	5-11-52	11:30 PM	5-12-52	1-PM	"	" - CLEAR
4	VERONA-AVE	5-12-52	2-PM	5-12-52	4-PM	ANDERSON	— "
5	UNION-OUTLET	5-12-52	3-PM	5-12-52	4:15 PM	"	— "
6	HERBERT-PL	—	—	5-13-52	10:30	"	— "
7	4TH AVE	—	—	5-13-52	11 AM	"	— "
8	CLAY-ST	—	—	5-12-52	11:30 PM	"	— "
9	UNION-OUTLET	5-13-52	2-PM	5-14-52	8-AM	"	HEAVY-WATER-CLEAR
10	VERONA-AVE	5-13-52	2:30 PM	5-14-52	8:30 AM	"	" CLEAR
11	HERBERT-PL	5-13-52	3-PM	5-14-52	9 AM	"	" CLEAR
12	CLAY-ST	5-13-52	3:30 PM	5-14-52	10 AM	"	" CLEAR
13	[redacted]	—	—	5-14-52	2:30 PM	"	CLEAR —

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr. Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk. Bay P.S. Suct. Sewer Water Level	Second River Main Int. Sew Water Level	REMARKS
May-11-52	6-PM				4 FT - 10	BEFORE
"	6:30 PM				5 FT - 0	"
"	7-PM				5 FT - 0	"
"	7:30 PM				5 FT - 0	"
"	8-PM				5 FT - 2	"
"	8:30 PM				5 FT - 6	"
"	9-PM				6 FT - 0	"
May-11-52	2:30 PM				7 FT - 4	AFTER —
"	3-PM				7 FT - 4	"
"	3:30 PM				7 FT - 5	"
"	4 PM				7 FT - 6	"
"	4:30 PM				7 FT - 6	"
" REMARKS	5 PM				7 FT - 4	"
"	5:30 PM				7 FT - 4	"

ON-3-PAGES—

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

	LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
		Date	Hour	Date	Hour		
1	[illegible] OUTLET	4-26-52	8-AM	4-28-52	7-PM	MARQUARDT	RAIN—
2	VERONA AVE	"	9-AM	4-26-52	7½PM	"	" —
3	ALL-NEWARK-NJ	"	11-AM			"	"
4	[illegible] JOCELYN ST	"	6-PM	4-26-52	9AM	"	"
5	HERBERT-PL	—	—	—	—	"	"
6	4TH AVE	—	—	—	—	"	"
7	OLIVE ST	—	—	4-26-52	8-PM	"	"
8	UNION OUTLET	4-26-52	10-AM	4-28-52	10 30 AM	"	"
9	VERONA-AVE	4-26-52	10 30 AM	4-28-52	4PM	"	"
10	HERBERT PL	"	—	"	4 15 PM	"	"
11	4TH AVE	"	—	"	5-PM	"	"
12	[illegible] ST	"	2 30 PM	"	5 20 PM	"	"
13	[illegible] ST	4-28-52	9 30 AM	4-29-52	10-AM	"	"
14	[illegible] ST	4-29-52	3-PM			"	HIGH WATER—
15	[illegible] AVE	"	3 15 PM			"	"

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr.Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk.Bay P.S. Suct. Sewer Water Level	Second River Main Int.Sew Water Level	REMARKS
4-25-1952	8-AM				4 FT - 8	BEFORE
"	8 30 AM				5 FT - 0	"
"	9-AM				5 FT - 0	"
"	9 30 AM				5 FT - 2	"
"	10-AM				5 FT - 4	"
"	10 30 AM				5 FT - 6	"
"	11-AM				5 FT - 8	"
MAY-9-52	4 30 PM				6 FT - 10	AFTER
"	5-PM				6 FT - 10	"
"	5 30 PM				6 FT - 10	"
"	6-PM				6 FT - 8	"
"	6 30 PM				6 FT - 6	"
"	7-PM				6 FT - 6	"
"	7 30 PM				6 FT - 6	"

REMARKS:

ABC013764

No. 2

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
	Date	Hour	Date	Hour		
[illegible]	4-29-52	3:30 PM	5-5-52	5 PM	MARQUARDT	HIGH WATER —
[illegible] AVE.	"	3:45 PM	5-3-52	9:30 AM	"	" CLEAR
[illegible] EAST	"	4:15 PM	4-30-52	9 AM	"	" CLEAR
[illegible]	5-5-52	9 AM	5-5-52	4:30 PM	"	HIGH WATER —
[illegible] AVE	"	9:30 AM	5-5-52	4:15 PM	"	" " —
[illegible]	"	3:30 PM	5-6-52	2 PM	"	" " —
[illegible]	5-6-52	3 PM	5-6-52	9:30 PM	"	" " —
[illegible]	5-6-52	3:45 PM	5-6-52	10 PM	"	" " —
[illegible]	5-6-52	3:30 PM	5-9-52	2:45 PM	"	" "
[illegible]	5-6-52	8 PM	5-7-52	9 AM	"	" " —
[illegible]	5-7-52	7:30 PM	5-7-52	8:30 AM	"	" " CLEAR
[illegible]	5-7-52	3 PM	5-7-52	9 AM	"	" " CLEAR
[illegible]	—	—	5-7-52	7:30 PM	"	CLEAR
[illegible]	—	—	5-7-52	2 PM	"	"

ABC013765

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

	LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
		Date	Hour	Date	Hour		
1	[illegible]	4-14-52	1-AM	4-14-52	10-AM	MARQUARDT	HEAVY-RAIN
2	[illegible]	4-14-52	1:15 AM	4-14-52	10:30 AM	"	" CLEAR
3	[illegible]	4-14-52	4-AM	—	—	"	"
4	[illegible]	4-14-52	2-PM	4-14-52	3:30 PM	"	RAIN — CLEAR
5	[illegible]	4-14-52	2:30 PM	4-15-52	1-PM	"	RAIN — CLEAR
6	[illegible]	4-16-52	—	4-16-52	—	"	CLEAR
7	[illegible]	—	—	"	—	"	"
8	[illegible]	—	—	"	11-AM	"	"
9	[illegible]	—	—	4-17-52	11-AM	"	CLEAR

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr. Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk. Bay P.S. Suct. Sewer Water Level	Second River Main Int. Sew Water Level	REMARKS
Apr. 13-1952	10-PM				4 FT - 5	BEFORE
"	10:30 PM				4 FT - 8	"
"	11-PM				5 FT - 0	"
"	11:30 PM				5 FT - 6	"
" 14 "	12-AM				6 FT - 0	"
"	12:30 AM				7 FT - 0	"
"	1-AM				8 FT - 0	"
APR. 17-52	11-AM				6 FT - 8	METER
"	11:30 AM				6 FT -	"
"	12-Noon				6 FT - 10	"
"	12:30 PM				7 FT - 0	"
"	1-PM				3 FT - 3	"
REMARKS	1:30 PM				7 FT - 4	"
"	2-PM				7 FT - 6	"
"						

ABC013768

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

	LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
		Date	Hour	Date	Hour		
1	[redacted]	4-4-52	4:30 PM	4-6-52	8:30 A.M	MARQUARDT	HIGH-WATER-MAIN-STR.
2	[redacted]	"	4:45 PM	"	9-AM	"	"
3	[redacted]	"	"	"	"	"	"
4	[redacted]	"	"	"	"	"	"
5	[redacted]	"	5:30 PM	"	11-AM	"	"
6	[redacted]	4-5-52	8-A-M	4-7-52	11-AM	"	HEAVY-RAIN-CLEAR
7	[redacted]						

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr.Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk.Bay P.S. Suct. Sewer Water Level	Second River Main Int.Sew Water Level	REMARKS
4-4-52	[redacted] PM				7ft - 0	BEFORE
"	[redacted] PM				7ft - 0	"
"	[redacted] PM				7ft - 0	"
"	[redacted] PM				7ft - 0	"
"	[redacted] PM				6ft - 8	"
"	[redacted] PM				6ft - 6	"
"	4:30 PM				6ft - 4	"
4-5-52	11-AM				6ft - 8	AFTER
"	11:30 AM				7ft - 2	"
"	[redacted]				7ft - 4	"
"	[redacted]				7ft - 5	"
"	[redacted]				7ft - 6	"
"	REMARKS [redacted]				7ft - 7	"
						"

ABC013769

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
	Date	Hour	Date	Hour		
[redacted]	[redacted]	3-PM	3-24-52	9 am	Marquardt	RAIN-
[redacted]	[redacted]	5-PM	—	—	"	RAIN-CLEAR
[redacted]	—	—	3-24-52	9:30 AM	"	CLEAR-
[redacted]	3-24-52	6-PM.	3-25-52	9 a.m.	"	RAIN-CLEAR
[redacted]	3-24-52	6:15 PM	3-25-52	9:30 AM	"	" "
[redacted]	—	—	—	—	"	
[redacted]	—	—	3-25-52	10:30 AM	"	CLEAR-
[redacted]	—	—	3-26-52	11 AM	"	CLEAR-

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs, Following Closing of Regulators)

DATE	TIME (½ hr. Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk. Bay P.S. Suct. Sewer Water Level	Second River Main Int. Sew Water Level	REMARKS
Mar-24-1952	2-P.M				6 Ft - 7	BEFORE
"	[redacted] PM				6 Ft - 8	"
"	3-P.M				6 Ft - 10	"
"	[redacted] PM				6 Ft - 6	"
"	4-P.M				6 Ft - 4	"
"	[redacted] PM				6 Ft - 2	"
"	5-P.M.				6 Ft - 0	"
Mar-26-1952	[redacted] AM				9 Ft - 2	AFTER
"	[redacted] AM				7 Ft - 6	"
"	[redacted] AM				8 Ft - 0	"
"	[redacted] AM				8 Ft - 0	"
"	[redacted] AM				8 Ft - 2	"
"	[redacted] AM				8 Ft - 4	"
"	2-P.M				8 Ft - 4	"

REMARKS

ABC013770

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
	Date	Hour	Date	Hour		
[illegible]	[illegible] 19-52	9 a.m.	3-19-52	6:20 PM	MARQUHART	RAIN — CLEAR
[illegible]	[illegible] 19-52	10:30 AM	—	—	"	RAIN —
[illegible]	3-19-52	2:15 PM	3-20-52	9 AM	"	RAIN — CLEAR
[illegible]	—	—	3-19-52	7-PM	"	CLEAR
[illegible]	—	—	—	—		
[illegible]	—	—	3-20-52	7-PM	"	CLEAR —
[illegible]	—	—	3-21-52	11-AM	"	CLEAR

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr. Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk. Bay P.S. Suct. Sewer Water Level	Second River Main Int. Sew Water Level	REMARKS
	[illegible]				5 FT — 4	BEFORE
MAR. 19, 1952	[illegible] PM				5 FT — 6	"
"	[illegible] PM				6 FT — 4	"
"	[illegible] PM				6 FT — 4	"
"	[illegible] PM				6 FT — 4	"
"	10 [illegible] PM				6 FT — 2	"
"	10:30 PM				6 FT — 2	"
MAR. 21, 1952	[illegible] AM				6 FT — 8	AFTER
"	[illegible] AM				6 FT — 9	"
"	[illegible] AM				7 FT — 0	"
"	[illegible] AM				7 FT — 2	"
"	[illegible] AM				7 FT — 5	"
REMARKS	[illegible] AM				7 FT — 6	"
"	[illegible] AM				7 FT — 7	"
						"

ABC013771

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
	Date	Hour	Date	Hour		
[illegible]	3-11-52	2-AM	3-17-52	1-PM	MARQUERAT	HEAVY-RAIN-FALL
[illegible]	[illegible]	5-AM	—	—	"	"
[illegible]	3-11-52	9:30 AM	3-12-52	9:30 AM	"	" CLEAR
[illegible]	3-11-52	11:20 AM	3-12-52	2-PM	"	" CLEAR
[illegible]	—	—	—	—	ANDERSON	
[illegible]	—	—	—	—	"	
[illegible]	—	—	3-17-52	2-PM	"	CLEAR—
[illegible]						
[illegible]						
[illegible]						
[illegible]						
[illegible]						
[illegible]			3-18-52	10:30 AM	MARQUERAT	CLEAR
[illegible]						
[illegible]						

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr. Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk. Bay P.S. Suct. Sewer Water Level	Second River Main Int. Sew Water Level	REMARKS
[illegible]	2-AM					BEFORE
[illegible]	[illegible] AM				6 FT - 8	"
[illegible]	[illegible] AM				6 FT - 2	"
[illegible]	[illegible] AM				6 FT - 0	"
[illegible]	[illegible]				6 FT - 0	"
[illegible]	[illegible]				6 FT - 0	"
[illegible]	[illegible]				6 FT - 0	"
[illegible]	[illegible] AM				6 FT - 4	
[illegible]	[illegible] AM				6 FT - 6	
[illegible]	[illegible]				6 FT - 7	
[illegible]	[illegible]				6 FT - 8	
[illegible]	[illegible]				7 FT - 2	
REMARKS	[illegible]				7 FT - 3	
"	[illegible]				7 FT - [illegible]	

ABC013772

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
	Date	Hour	Date	Hour		
[redacted]	[redacted]-52	6-P.M	3-1-52	9-A.M	MARQUARDT	No-3 BOILER-BREAK
[redacted]	[redacted]-52	9-P.M	—	—	"	"
[redacted]	—	—	3-1-52	9:30 A.M	"	"
[redacted]	3-1-52	11-A.M	3-3-52	9-A.M	"	"
[redacted]	—	—	—	—		
[redacted]	—	—	3-3-52	11-A.M	"	"
[redacted]	3-3-52	4:30-P.M	3-4-52	8.A.M	"	"
[redacted]	—	—	—	—		HIGH-WATER
[redacted]	[redacted]-52	5:30 P.M	—	—		"
[redacted]	3-4-52	4-P.M	3-5-52	8:30-A.M	"	"
[redacted]	—	—	—	—		
[redacted]	—	—	3-5-52	7:30 P.M	"	"
[redacted]	[redacted]-52	4-P.M	3-6-52	8-A.M	"	"
[redacted] N.J	—	—	3-7-52	10:30 A.M	"	"

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr. Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk. Bay P.S. Suct. Sewer Water Level	Second River Main Int. Sew Water Level	REMARKS
[redacted]	[redacted] A.M	—	—	—	4FT - 8	BEFORE
"	[redacted] A.M	—	—	—	4 FT - 8	"
"	[redacted] A.M	—	—	—	4 FT - 6	"
"	[redacted] A.M	—	—	—	4FT - 5	"
"	[redacted] A.M	—	—	—	4 FT - 4	"
"	[redacted] A.M	—	—	—	4 FT - 4	"
"	[redacted] A.M	—	—	—	4FT - 4	"
[redacted]	[redacted] P.M				6 FT - 6	AFTER
"	[redacted] P.M				6 FT - 8	
"	[redacted] P.M				7 FT - 0	
"	[redacted] P.M				7 FT - 2	
"	[redacted] P.M				7 FT - 4	
"	[redacted] P.M				7 FT - 6	
"	[redacted] P.M				7 FT - 6	
"	2-P.M					
				—		

REMARKS:

ABC013773

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
	Date	Hour	Date	Hour		
UNION-OUTLET	2-20-52	4-PM	2-21-52	8-AM	LUDETKIN	HIGH-WATER-MAIN-STA
ALL-NEWARK-N.J	2-20-52	6-PM	—	—	"	" " " "
VERONA-AVE	—	—	2-21-52	9-AM	"	LOW-WATER
HERBERT-PLACE	—	—	2-21-52	1-PM	"	"
4TH AVE	—	—	2-21-52	1:30 PM	"	"
CLAY-ST	—	—	2-21-52	2-PM	"	"
ALL-NEWARK-BACK	—	—	2-22-52	10:30 AM	"	"

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr. Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk. Bay P.S. Suct. Sewer Water Level	Second River Main Int. Sew Water Level	REMARKS
FEB-21-52	1-PM				7-FT-5"	BEFORE
"	1:30 PM				7-FT-5"	"
"	2-PM				7-FT-6"	"
"	2:30 PM				7-FT-6"	"
"	3-P.M				7-FT-8"	"
"	3:30 PM				7-FT-8"	"
"	4-PM				7-FT-9"	"
FEB-22-52	10:30 AM				5 FT-4	AFTER
"	11-A-M				5 FT-4	"
"	11:30 A-M				5 FT-6	"
"	12-NOON				5 FT-7	"
"	12:30 NOON				5 FT-8	"
REMARKS	1-P.M				5 FT-9	
	1:30 P.M.				5 FT-10	

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
	Date	Hour	Date	Hour		
UNION-OUT-LET	FEB-17-52	2 AM	FEB-18-52	9-AM	MARQUARET	RAIN-CLEAR
ALL-NEWARK-N.J-	FEB-17-52	3:20 AM	—	—	"	RAIN —
VERONA AVE -	—	—	—	—	"	
INCLUDING-CLAY-ST	—	—	FEB-18-52	9-AM	"	CLEAR —
ALL-NEWARK-BROOK	—	—	FEB-19-52	11-AM		CLEAR —

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr. Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk. Bay P.S. Suct. Sewer Water Level	Second River Main Int. Sew Water Level	REMARKS
FEB-16-1952	11-P.M	—	—	—	5 FT - 4	BEFORE
"	11:20 PM	—	—	—	5 FT - 6	"
"	12-MID	—	—	—	5 FT - 8	"
FEB-17-52	12:20 AM	—	—	—	5 FT - 10	"
"	1-A M	—	—	—	6 FT - 0	"
"	1:20 A M	—	—	—	5 FT - 8	"
"	2-A M	—	—	—	5 FT - 8	"
FEB-19-52	11-A-M	—	—	—	7 FT - 0	AFTER
"	11:20 A M	—	—	—	7 FT - 2	"
"	12-NOON	—	—	—	7 FT - 4	"
"	12:20 P.M	—	—	—	7 FT - 5	"
"	1-P M	—	—	—	7 FT - 6	"
"	1:20 PM	—	—	—	7 FT - 7	"
"	2-P M	—	—	—	7 FT - 10	"

REMARKS:

DEC	Out		In		Ordered
	Date	Hour	Date	Hour	By
Union	12-14-53	5:30 AM	12-14-53	12-N.	Marquardt; Rain; High Water; [illegible]
Verona Ave	"	5:45 "	"	12:15 PM	
Herbert Pl	"	6 "	12-15-53	10:30 AM	
4th Ave	"	6:15 "	12-14-53	3:30 PM	
Clay St	"	6:30 "	"	3:15 "	
Rector St	"	6:45 "	12-15-53	1:15 "	
Saybrook Pl	"	7 "	"	1:30 "	
City Dock	"	7:15 "	"	1:45 "	
Jackson St	"	7:30 "	"	2 "	
Polk St	"	7:45 "	"	2:15 "	
Freeman St	"	8 "	"	2:30 "	
Yantacaw	"	8:45 "	12-15-53	9 AM	

ABC013667

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
	Date	Hour	Date	Hour		
UNION	1-24-13	9-AM	1-24-13	3-PM	MARQUARDT	RAIN - CLEAR
VERONA AVE	"	9 15 "	"	3 15 "	"	" "
HERBERT PL	"	9 30 "	"	3 30 "	"	" "
4TH AVE	"	9 45 "	"	3 45 "	"	" "
CLAY ST	"	10 - "	"	4 - "	"	" "
RECTOR ST	"	10 15 "	1-25-13	10-AM	"	" "
SATBROOK PL	"	10 30 "	"	10 15 "	"	" "
CITY DOCK	"	10 45 "	"	10 30 "	"	" "
JACKSON ST	"	11 - "	"	10 45 "	"	" "
POLK ST	"	11 15 "	"	11 - "	"	" "
FREEMAN ST	"	11 30 "	"	11 30 "	"	" "
YANTACAW	"	2-PM	1-25-13	8 - "	"	" "

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr. Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk. Bay P.S. Suct. Sewer Water Level	Second River Main Int. Sew Water Level	REMARKS
1-24-13	6-AM				5 FT - 4	
"	6 30 "				5 FT - 2	
"	7 - "				5 FT - 2	
"	7 30 "				5 FT - 2	
"	8 - "				5 FT - 3	
"	8 30 "				5 FT - 4	
"	11 - "				7 FT - 1	
1-24-13	6-PM				4 FT - 8	
	6 30 "				4 FT - 4	
	7 - "				4 FT - 2	
	7 30 "				4 FT - 0	
1-25-13	1-PM				6 FT - 6	
REMARKS	1 30 "				6 FT - 4	
"	2 - "				6 FT - 4	
"	2 30 "				6 FT - 4	
"	11 - AM				6 FT - 2	

ABC013677

PASSAIC VALLEY SE[redacted] COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED Date	OPENED Hour	CLOSED Date	CLOSED Hour	ORDERED BY	REASON
UNION	2-15-53	10-AM	2-15-53	330 PM	MANQUARD	RAIN - CLEAR
VERONA AVE	"	10 15	"	3 45 "	"	" "
HERBERT PL	"	10 30	"	4 - "	"	" "
4TH AVE	"	10 45	"	4 15 "	"	" "
CLAY ST	"	11-	"	4 30 "	"	" "
RECTOR ST	"	11 15	2-16-53	2-PM	"	" "
SAYBROOK PL	"	11 30	"	2 15 "	"	" "
CITY DOCK	"	11 45	"	2 30 "	"	" "
JACKSON ST	"	12 -	"	2 45 "	"	" "
POLK ST	"	12 15	"	3 - "	"	" "
FREEMAN ST	"	12 30	"	3 15 "	"	" "
YANTACAW	"	2-PM	"	9-AM	"	" "

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr.Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk.Bay P.S. Suct. Sewer Water Level	Second River Main Int.Sew Water Level	REMARKS
2-15-53	7-AM				4 FT - 0	
"	7-30 "				4 FT - 2	
"	8- "				4 FT - 2	
"	830 "				5 FT - 0	
"	9- "				5 FT - 6	
"	930 "				6 FT - 6	
"	11- "				3 FT - 6	
"	630 PM				3 FT - 4	
"	7- "				3 FT - 4	
"	730 "				3 FT - 2	
2-16-53	5- "				2 FT - 4	
"	530 "				2 FT - 4	

REMARKS:

"	630 "	2 FT - 4
"		2 FT - 4
"	12-NOON	6 FT - 8

ABC013679

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHIEF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON
	Date	Hour	Date	Hour		
UNION	2-21-63	8-AM	2-21-63	1:30 PM	MARQUARD	RAIN - CLEAR
VERONA AVE	"	8:15 "	2-22-63	8:30 "	"	" "
HERBERT PL	"	8:30 "	"	8:45 "	"	" "
4TH AVE	"	8:45 "	"	9- "	"	" "
CLAY ST.	"	9- "	2-21-63	2-PM	"	" "
YANTACAW	"	10- "	2-22-63	8-AM	"	" "

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr. Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk. Bay P.S. Suct. Sewer Water Level	Second River Main Int. Sew Water Level	REMARKS
2-21-63	7-AM				5 FT - 6	
"	7:30 "				5 FT - 6	
"	8- "				5 FT - 6	
"	8:30 "				5 FT - 6	
"	9- "				6 FT - 6	
"	10:30 "				5 FT - 2	
2-22-63	11:30 "				3 FT - 10	
"	12-				4 FT - 0	
"	12:30				4 FT - 0	
2-21-	7-PM				2 FT - 7	
2-22-63	11-AM				3 FT - 10	

REMARKS: _____

ABC013680

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHIEF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED Date	OPENED Hour	CLOSED Date	CLOSED Hour	ORDERED BY	REASON	
UNION	2-15-53	8-AM	3-10-53	7-PM	MARQUARD	REPAIR BULK HEAD	
VERONA AVE	"	8 15 "	3-10-53	6 45 PM	"	"	"
HERBERT PL	"	8 30 "	3-10-53	6 30 PM	"	"	"
4TH AVE	"	8 45 "	3-10-53	6 15 PM	"	"	"
CLAY ST	"	9 - "	3-10-53	6 PM	"	"	"
RECTOR ST	"	9 15 "	3-11-53	9 30 AM	"	"	"
SAYBROOK PL	"	9 30 "	3-11-53	9 45 AM	"	"	"
CITY DOCK	"	9 45 "	3-11-53	10 AM	"	"	"
JACKSON ST	"	10 - "	3-11-53	10 15 AM	"	"	"
POLK ST	"	10 15 "	3-11-53	10 30 AM	"	"	"
FREEMAN ST	"	10 30 "	3-11-53	10 45 AM	"	"	"
YANTACAW	"	1-PM	3-10-53	7 30 PM	"	"	"

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr. Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk. Bay P.S. Suct. Sewer Water Level	Second River Main Int. Sew Water Level	REMARKS
2-15-53	7-AM					Chart at Main office
"	7 30 "					
"	6 - "					
"	6 30 "					
"	7 - "					
"	7 30 "					
"	10 30 "					
3-10-53	9-PM				2 FT - 2	
"	9 30 "				2 FT - 2	
"	10 - "				1 FT - 8	
"	10 30 "				1 FT - 10	
3-11-53	12 30 AM				5 FT - 5	
"	1 - PM				5 FT - 6	
"	1 30 PM				5 FT - 6	
"	2 - PM				5 FT - 8	

REMARKS:

ABC013681

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	OUT		IN	
	DATE	HOUR	DATE	HOUR
YANKEAW	3-13-√3	2.30 PM	3-14-√3	AM
"	3-17-√3	1.30 PM	3-18-√3	9.30 AM
"	3-24-√3	12-N	3-25-√3	12 N
"	3-27-√3	10.30 AM	3-28-√3	3.30 PM
"	4-7-√3	7.15 AM	4-8-√3	9.30 AM
"	4-10-√3	10 AM.	4-11-√3	10.30 AM
"	4-13-√3	4 A.M.	4-14-√3	4.0 AM
"	4-16-√3	1-AM	4-17-√3	10.30 AM
"	√-22-√3	4.30 PM	√-23-√3	8.30 AM
"	√-27-√3	2.30 PM	√-28-√3	9.30 AM

June Supplement Report

	Out			
Union	6-22-13	9 30 AM		Marquardt
Herbert	"	945 "		"
4th Ave	"	10 - "		"
Clay St	"	10 15 "		"
Rector St	"	10 30 "		"
Saybrook	"	10 45 "		"
City Dock	"	11 - "		"
Jackson St	"	11 15 "		"
Polk St	"	11 30 "		"
Freeman St	"	11 45 "		"
Yantacaw	"	2 30 PM		"

6 30 Am	4' 5"
7 - "	4' 5"
7 30 "	4' 5"
8 - "	4' 5"
8 30 "	4' 6"

ABC013697

JUNE

	OUT		IN	
UNION			6-22-√3	6:15 PM
HERBERT			6-22-√3	6:30 PM
4TH AVE			6-22-√3	6:45 PM
YANTACAW			6-23-√3	8:45 AM
UNION	6-23-√3	9:30 AM		
HERBERT	6-23-√3	9:45 AM		
4TH AVE	6-23-√3	10 AM		
OPENED	6-23-√3			
12:30 PM	√' 8"			
1 "	√' 9"			
1:30 "	√' 9"			
CLOSED	6-22-√3			
9 PM	4' 2"			
9:30 "	4' 2"			
10 "	4' 2"			

ABC013698

JUNE

	OUT		IN	
	DATE	HOUR	DATE	HOUR
YANTACAW	6-30-√3	4.30 PM	6-30-√3	6.30 PM
"				

PASSAIC VALLEY SEWERAGE COMMISSIONERS
REPORT OF CHEIF ENGINEER
ON MANUAL OPERATION OF STORM WATER OVERFLOW REGULATORS
MAIN INTERCEPTING SEWER

LOCATION OF OVERFLOW	OPENED		CLOSED		ORDERED BY	REASON	
	Date	Hour	Date	Hour			
Yantacaw	7-23-53	10 [illegible]	7-24-53	8 [illegible] AM.	Marquardt	Rain — Clear	
Union Outlet	"	8[illegible] AM	7-23-53	3 - PM	B. Anderson	"	"
4th Ave.	"	8[illegible] AM	"	3[illegible] PM.	"	"	"
Clay St.	"	8[illegible] AM	"	3[illegible] PM.	"	"	"
Rector St.	"	9[illegible] AM	[illegible]	[illegible]	"	"	"
Saybrook Pl.	"	9[illegible] AM	"	[illegible]	"	"	"
City Dock	"	9[illegible] AM	"	1[illegible] PM.	"	"	"
Jackson St.	"	9[illegible] AM	"	1[illegible] PM.	"	"	"
Polk St.	"	9[illegible] AM	"	2[illegible] PM.	"	"	"
Freeman St.	"	10 - AM	"	2[illegible] PM.	"	"	"

PUMPING RECORD (For 3 hrs. Preceding Opening and 3 hrs. Following Closing of Regulators)

DATE	TIME (½ hr. Int.)	PUMPAGE M.G.D.	NO. OF PUMPS	Nwk. Bay P.S. Suct. Sewer Water Level	Second River Main Int. Sew Water Level	REMARKS
7-23-53	5[illegible] AM.	—	—	—	4 - 10	BEFORE
"	6 - AM.	—	—	—	4 - 8	"
"	6[illegible] AM.	—	—	—	4 - 6	"
"	7 - AM.	—	—	—	4 - 6	"
"	7[illegible] AM.	—	—	—	4 - 6	"
"	8 - AM.	—	—	—	4 - 6	"
"	8[illegible] AM.	—	—	—	4 - 6	"
7-24-53	2[illegible] PM.	—	—	—	[illegible] - 2	AFTER
"	3 - PM.	—	—	—	[illegible] - 3	"
"	3[illegible] PM.	—	—	—	[illegible] - 4	"
"	4 - PM.	—	—	—	5 - 4	"
"	4[illegible] PM.	—	—	—	5 - 6	"
"	5 - PM.	—	—	—	[illegible] - 6	"
"	5[illegible] PM.	—	—	—	5 - 6	"
"						

REMARKS

ABC013704

AUG 14-53

	OUT		IN		
	DATE	HOUR	DATE	HOUR	
YANTACAW	8-14-53	6.30 PM			
UNION			8-14-53	7.30 PM	
4th AVE			8-15-53	8.30 AM	
CLAY St			"	8.45 "	
RECTOR St			"	9 - "	High Water - All Around
SAYBROOK PL			"	9.15 "	
CITY DOCK			"	9.30 "	
JACKSON St			"	9.45 "	
POLK St			"	10 - "	
FREEMAN St			"	10.15 "	
YANTACAW			"	11 - "	

ABC013707

OCT-

	OUT		IN		ORDER BY
	DATE	HOUR	DATE	HOUR	
VERONA AVE	10-27-√5	4.30PM			
4TH AVE	10-27-√3	4.√0 "			
YANTACAW	10-28-√3	9.15 AM			
YANTACAW			10-28-√3	1.30PM	
UNION			10-28-√3	1.45PM	
VERONA AVE			10-28-√3	2.15PM	
4TH AVE			10-√FJ	2.00PM	
CLAY ST			10-2F-√3	2.30PM	

ABC013712

Nov.	Out		In		
	Date	Hour	Date	Hour	By.
Union Outlet	11.7.53	630 AM			
Verona Ave	"	645 "			
Herbert Pl	"	7- "			
4th Ave	"	715 "			
Clay St	"	730 "			[illegible]
Rector St	"	745 "			
Saybrook Pl	"	8- "			
City Dock	"	815 "			
Jackson St	"	830 "			
Polk St	"	845 "			
Freeman St	"	9- "			
Yantacaw	"	11.30 "			
Yantacaw			11.8.53	9- AM	
Herbert Pl			"	10.30 "	
4th Ave			"	10 45 "	
Clay St			"	11- "	
Rector St			"	11.15 "	
Saybrook Pl			"	11.30 "	
City Dock			"	11.45 "	
Jackson St			"	12 -N-	
Polk St			"	12.N PM	
Freeman St			"	12.30 "	
Union			"	2- "	
Verona Ave			"	2.15 "	

NOV.

	OUT		IN		
	DATE	HOUR	DATE	HOUR	BY
UNION	11-23-53	9.30 AM			J. TERRY NBPS
HERBERT PL	"	9.45 "			
4TH AVE	"	10 - "			
CLAY ST.	"	10 - 15 "			
RECTOR ST	"	10 - 30 "			
SAYBROOK PL	"	10 - 45 "			
CITY Dock	"	11 - "			
JACKSON ST	"	11 15 "			
POLK ST	"	11 30 "			
FREEMAN ST	"	11 45 "			
YANTHAW	"	1 - PM			
FREEMAN ST			11-23-53	2.30 PM	
POLK ST			"	2 45 "	
JACKSON ST			"	3 - "	
CITY Dock			"	3 15 "	
SAYBROOK PL			"	3 30 "	
RECTOR ST			"	3 45 "	
CLAY ST			"	4 - "	
UNION			"	4 - 15 "	

ABC013718